

problem by writing it off as too speculative⁸⁵ or acting on incomplete information or assumptions.⁸⁶

The Draft Guidance also states that “when an agency determines that the tools, methods, or data inputs necessary to quantify a proposed action’s GHG emissions are not *reasonably available*, or it otherwise would not be *practicable*, the agency should [alternatively] include a qualitative analysis. . . .”⁸⁷ Again, CEQ has failed to explain what these terms mean. This provision also presents an unlikely scenario because there are many tools available for quantification,⁸⁸ including CEQ’s own compilation of GHG accounting tools, methodologies, and reports that it published for use by agencies engaged in emissions quantification.⁸⁹ Moreover, federal agencies reviewing actions that are likely to have significant GHG emissions impacts such as pipelines, mining activities, and transportation projects have already implemented quantification at the environmental assessment and EIS stages of NEPA review and are thus familiar with the available data and methodologies.⁹⁰ Absent clarification, CEQ’s use of

⁸⁵ See *id.* at 1230-31; *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d at 548-50 (rejecting agency’s argument that it need not consider air quality impacts of building national railroad to transport coal because the exact extent of impact was speculative).

⁸⁶ *WildEarth Guardians v. Bur. of Land Mgmt.*, 870 F.3d 1222, 1237-38 (10th Cir. 2017) (rejecting agency’s analysis of impacts from coal leasing on carbon emissions and climate change that relied on faulty economic assumption); see generally *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 493 (9th Cir. 2011) (holding that agency violated NEPA when it failed to consider important aspect of problem by relying on data from only one-third of the rangeland in dispute and evaluating impacts without complete data); *Churchill County v. Norton*, 276 F.3d 1060, 1072-73 (9th Cir. 2001) (stating that NEPA “emphasizes the importance of coherent and comprehensive up-front environmental analysis to ensure...that the agency will not act on incomplete information” (internal quotation marks and citations omitted)).

⁸⁷ Draft Guidance, *supra* note 1, at 30,098 (emphases added).

⁸⁸ See, e.g., U.S. Env’tl. Protection Agency, *EPA Detailed Comments on FERC NOI for Policy Statement on New Natural Gas Transportation Facilities* 2-4 (June 21, 2018), https://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20180621-5095 (listing numerous existing tools and information available to calculate upstream and downstream climate emissions associated with pipeline infrastructure).

⁸⁹ NEPA.GOV, *Greenhouse Gas (GHG) Accounting Tools*, <https://ceq.doe.gov/guidance/ghg-accounting-tools.html> (last visited August 23, 2019).

⁹⁰ See, e.g., Surface Transp. Bd., *Draft Environmental Impact Statement for the Proposed Construction and Operation of the Tongue River Railroad Appendix F* (Apr. 2015), [https://www.stb.gov/decisions/readingroom.nsf/UNID/E7DE39D1F6FD4A9A85257E2A0049104D/\\$file/AppF_Lifecycle+GHG.pdf](https://www.stb.gov/decisions/readingroom.nsf/UNID/E7DE39D1F6FD4A9A85257E2A0049104D/$file/AppF_Lifecycle+GHG.pdf) (quantifying not only downstream combustion emissions of a coal-rail project, but also upstream emissions including the production of the steel and other materials for construction); Office of Surface Mining Reclamation and Enforcement, Environmental Assessment (DOI-BLM-CO-S010-2011-0074-EA), Federal Coal Lease (COC-62920) Modification and Federal Mine Permit (CO-0106A) Revision and Renewal 76-82, 173 (Oct. 12, 2017), https://eplanning.blm.gov/epl-front-office/projects/nepa/70895/127910/155610/King_II_Lease_Mod_Final_EA_2017-1012.pdf (quantifying direct carbon dioxide emissions from equipment to operate mine and construct improvements; indirect carbon dioxide emissions from mine workers’ commutes; methane emissions from coal extraction process; indirect carbon dioxide emissions from transporting coal; and downstream carbon dioxide

ambiguous language encourages agencies to avoid quantification that can and should be done. The Draft Guidance is thereby inconsistent with NEPA and CEQ's obligation to ensure that agencies comply with the statute.⁹¹

As noted in the comments submitted in 2015 by the California Governor's Office of Planning and Research ("OPR") regarding the previous CEQ draft GHG guidance (referred to herein as the "2015 OPR Comments"), emissions from many projects are easily quantified using existing tools. The 2015 OPR Comments note that "[n]ational protocols for calculating greenhouse gas emissions are also readily available, such as the United States Community Protocol for Calculating Greenhouse Gas Emissions and the Local Government Operations Protocol."⁹² California has long recognized that GHG quantification tools are widely available and reliable. Nearly a *decade* ago, during the process for amending the CEQA Guidelines to address GHG quantification, the California Natural Resources Agency noted that "quantification of GHG emissions is possible for a wide range of projects using currently available tools."⁹³ This is not unique to California; such tools are widely available to the federal government, in connection with federal projects, as well. For example, emission factors from construction equipment and other non-road engines have been readily available from EPA's NONROAD model since the late 1990s, while EPA's MOBILE6.1/6.2 model has included GHG emission factors since 2002. As OPR noted in its comments four years ago, the available tools have improved, and their use has become widespread.⁹⁴ That is even more true today.

C. The Draft Guidance's Direction Regarding Cumulative Impacts Does Not Comply With NEPA

The Draft Guidance's instruction regarding cumulative impacts analysis also conflicts with NEPA. NEPA requires a lead agency to give a "hard look" at the cumulative impacts of a project, i.e., the "impact on the environment which results from the incremental impact of the

emissions from coal combustion; quantifying total direct and estimated indirect GHG emissions from maximum production at mine relative to total U.S. and global emissions).

⁹¹ A survey conducted July 2012 through December 2014 found that of the 238 EISs surveyed, 214 (90%) contained some discussion of GHG emissions or climate change impacts, 172 (72%) discussed the GHG emissions associated with a proposed action, and 167 (70%) discussed how climate change may affect the proposed action. Jessica Wentz et al., Columbia Law School Sabin Ctr. For Climate Change Law, *Survey of Climate Change Considerations In Federal Environmental Impact Statements, 2012-2014*, at ii, 5, 11 (2016), <http://columbiaclimatelaw.com/files/2016/06/Wentz-et-al.-2016-02-Climate-Change-Considerations-in-Federal-EIS-2012-14.pdf>.

⁹² See Comments from the Governor's Office of Planning and Research regarding the White House Council on Environmental Quality's "Revised Draft Guidance on Greenhouse Gases and Climate Change" at 3 (Mar. 24, 2015) A copy of the 5 OPR Comments is attached as Exhibit 2 to this letter. See also California Air Resources Board, Local Government Operations Protocol for Greenhouse Gas Assessments, <https://ww3.arb.ca.gov/cc/protocols/localgov/localgov.htm> (last visited Aug. 23, 2019).

⁹³ Cal. Natural Resources Agency, *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97*, at 21 (Dec. 2009), http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf.

⁹⁴ 2015 OPR Comments, *supra* note 92, at 4.

action when added to other past, present, and reasonably foreseeable future actions.”⁹⁵ A cumulative impact “can result from individually minor but collectively significant actions taking place over a period of time.”⁹⁶ The level of analysis required for NEPA’s “hard look” is project-specific, and the analysis must be sufficient to provide a meaningful basis for an agency to compare amongst alternatives and decide whether to undertake the action in question.⁹⁷

Several courts have upheld GHG cumulative impact analyses when they quantify both the project’s GHG emissions and sector-related regional emissions, and have found cumulative impact analyses to be insufficient when they do not.⁹⁸ For example, in *WildEarth Guardians v. Zinke*, the United States District Court for the District of Columbia held that the U. S. Department of the Interior, Bureau of Land Management’s (BLM) environmental assessments for oil and gas leasing on federal land were insufficient because BLM failed to quantify the drilling-related GHG emissions from the leased parcels and failed to sufficiently compare them to regional and national emissions.⁹⁹ The cumulative impacts analyses were insufficient because they did not provide “data-driven” comparisons of drilling-related GHG emissions resulting from the leases to regional and national GHG emissions.¹⁰⁰ To satisfy NEPA, the court concluded that BLM should have quantified these comparisons and should have stated the cumulative effect of the decision with “reasonable specificity.”¹⁰¹

In line with these requirements, the 2016 Guidance urged agencies to take an expansive view of cumulative impacts. It admonished that a “statement that emissions from a proposed Federal action represent only a small fraction of global emissions is essentially a statement about the nature of the climate change challenge, and is not an appropriate basis for deciding whether or to what extent to consider climate change impacts under NEPA.”¹⁰² And “[a]gencies should

⁹⁵ 40 C.F.R. § 1508.7 (2019); *Fritiofson v. Alexander*, 772 F.2d 1225, 1247 (5th Cir. 1985).

⁹⁶ 40 C.F.R. § 1508.7.

⁹⁷ See *Nat. Res. Defense Council, Inc. v. Hodel*, 865 F.2d 288, 299 (D.C. Cir. 1988) (EIS must analyze the combined effects of the actions in sufficient detail to be “useful to a decisionmaker in deciding whether, or how, to alter the program to lessen cumulative environmental impacts.”).

⁹⁸ See, e.g., *Citizens for a Healthy Cmty. v. Bur. of Land Mgmt.*, 49 ELR 20,044 (D. Colo. March 27, 2019) (upholding BLM’s cumulative impact analysis of GHG emissions for master development plan for unit in Colorado basin because BLM looked at statewide emissions levels from coal-fired power plant for comparative assessment, performed regional cumulative impacts analysis of future mineral development in region, and quantified emissions expected from developments on land in question); *San Juan Citizens Alliance*, 326 F. Supp. 3d at 1240-41, 1248 (finding cumulative impacts analysis of GHG emissions from leasing of federal lands insufficient “facile conclusion” because it made qualitative comparison between “very small” increase in GHG emissions from leasing and regional and global emissions); see also *Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1180, 1216 (9th Cir. 2008); *Coal. for Healthy Ports v. U.S. Coast Guard*, 2015 U.S. Dist. LEXIS 159090 (S.D.N.Y. Nov. 24, 2015) (generally upholding cumulative impacts analysis of bridge project because it included “detailed, quantitative information”).

⁹⁹ *WildEarth Guardians*, 368 F. Supp. 3d at 51, 63.

¹⁰⁰ *Id.* at 77.

¹⁰¹ *Id.*

¹⁰² 2016 Guidance, *supra* note 3, at 11.

not limit themselves to calculating a proposed action's emissions as a percentage of sector, nationwide, or global emissions in deciding whether or to what extent to consider climate change impacts under NEPA."¹⁰³ The 2016 Guidance also directed agencies to "discuss relevant approved federal, regional, state, tribal, or local plans, policies, or laws for GHG emissions reductions or climate adaption to make clear whether a proposed project's GHG emissions are consistent with such plans or laws."¹⁰⁴

The Draft Guidance, by contrast, does not provide clarity on how agencies should perform cumulative impacts analyses for projects that implicate climate change, again inviting agencies to shirk their responsibilities to consider GHG effects. Instead, the Draft Guidance suggests that agencies may meet NEPA's cumulative impact analysis requirement by comparing a project's GHG emissions to local, regional, national, or sector-wide emissions estimates and providing a qualitative summary discussion of the effects of GHG emissions.¹⁰⁵ But this analysis of cumulative impacts would be insufficient for many projects, especially those involving fossil fuel leasing or transportation infrastructure, because NEPA's "hard look" requires a thorough analysis of cumulative GHG emissions and a more specific discussion of impacts and mitigation. The Draft Guidance thus ignores NEPA's requirement to analyze a project's cumulative effects when combined with other past, present, and reasonably foreseeable future federal actions.

As it did in the 2016 Guidance, CEQ should instruct agencies to thoroughly analyze a project's incremental impact on climate change. Specifically, CEQ should revise the Draft Guidance to instruct agencies to quantify cumulative impacts from GHG emissions, to consider a project's consistency with plans and policies to reduce GHG emissions, and to consider mitigation measures for cumulative impacts from GHG emissions.¹⁰⁶

D. CEQ's Draft Guidance Improperly Supports an Unbalanced Approach to Cost-Benefit Analysis

CEQ's Draft Guidance also encourages improper assessment of climate costs of federal agency actions. Specifically, CEQ's Draft Guidance directs agencies that they do not need to monetize or quantify climate impacts even if they quantify employment or other socio-economic impacts of a project.¹⁰⁷ As courts have concluded, such a one-sided approach to monetizing project impacts lacks legal or rational support.¹⁰⁸

¹⁰³ *Id.*

¹⁰⁴ *Id.* at 28-29.

¹⁰⁵ Draft Guidance, *supra* note 1, at 30,098.

¹⁰⁶ See *Sierra Club v. Clinton*, 689 F. Supp. 2d 1123, 1127, 1138-39 (D. Minn. 2010) (upholding cumulative impact analysis for GHG emissions from new 326-mile pipeline to transport crude oil, in part, because it discussed mitigation measures to offset emissions).

¹⁰⁷ Draft Guidance, *supra* note 3, at 30,099.

¹⁰⁸ See *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1198 (9th Cir. 2008) (agency "cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs" in failing to analyze benefits of reducing GHG emissions); *High Country Conservation Advocates v. U.S.*

Although NEPA does not require a federal agency to conduct a cost-benefit analysis,¹⁰⁹ where an agency chooses to quantify the benefits of a proposed action, it must also quantify the costs of that action when a tool is available to do so.¹¹⁰ For GHG emissions, the “social cost of carbon” provides such a tool. The former federal Interagency Working Group on Social Cost of Greenhouse Gases (“IWG”) developed the social cost of carbon “through an interagency process committed to ensuring that the [social cost of carbon] estimates reflect the best available science and methodologies” for monetizing long-term damage caused by increased carbon dioxide emissions.¹¹¹ As CEQ noted in its 2016 Guidance, the social cost of carbon is a useful, available tool during NEPA review for agencies and the public to understand the potential climate impacts of a proposed federal action.¹¹²

In a reversal from the 2016 Guidance, the Draft Guidance now rejects the social cost of carbon or any other cost metric as a tool for monetizing climate impacts under NEPA.¹¹³ It instructs agencies that they “need not weigh the effects of the various alternatives in NEPA in a monetary cost-benefit analysis using any monetized Social Cost of Carbon estimates.”¹¹⁴ CEQ then states that “[t]here may be some effects that are more capable of monetization or quantification, such as employment or other socio-economic impacts Monetization or quantification of some aspects of an agency’s analysis does not require that all effects, including potential effects of GHG emissions, be quantified.”¹¹⁵ The message is clear: monetize benefits, such as employment, but do not monetize the climate costs. In other words, the Draft Guidance wrongly directs agencies that they may monetize some aspects of their analysis, such as employment or other socio-economic impacts, without quantifying the costs from climate impacts of the action.¹¹⁶

But courts have taken agencies to task for following the one-sided approach CEQ is suggesting here—monetizing the benefits of a project while failing to use the social cost of

Forest Serv., 52 F. Supp. 3d 1174, 1195 (D. Colo. 2014) (“It is arbitrary to offer detailed projections of a project’s upside while omitting a feasible projection of the project’s costs.”).

¹⁰⁹ 40 C.F.R. § 1502.23.

¹¹⁰ See *Columbia Basin Land Prot. Ass’n v. Schlesinger*, 643 F.2d 585, 595 (9th Cir. 1981) (NEPA’s “policy of full disclosure applies equally to the economic and technological benefits of a project as to its environmental costs. If full disclosure were applied only to the environmental costs, the purposes of mandating a balancing analysis would be defeated.”); *Mont. Env’tl. Info. Ctr v. U.S. Office of Surface Mining*, 274 F. Supp. 3d 1074, 1095–99 (D. Mont. 2017) (agency arbitrarily failed to consider costs of GHG emissions from coal combustion when agency quantified socioeconomic benefits of coal mining).

¹¹¹ 2016 Guidance, *supra* note 3, at 33 n.86; see also Interagency Working Group on Social Cost of Greenhouse Gases, *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis* – Under Executive Order 12866 (Aug. 2016).

¹¹² 2016 Guidance, *supra* note 3, at 33 n.86 (stating that social cost of carbon “provides a harmonized, interagency metric that can give decision makers and the public useful information for their NEPA review”).

¹¹³ Draft Guidance, *supra* note 1, at 30,098.

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 30,099.

¹¹⁶ *Id.*

carbon tool to monetize the climate costs—because it impairs an agency’s ability to make an informed decision.¹¹⁷ In *High Country*, for example, the court faulted the U.S. Forest Service for refusing to use social cost of carbon estimates: “[e]ven though NEPA does not require a cost-benefit analysis, it was nonetheless arbitrary and capricious to quantify the *benefits* of the lease modifications and then explain that a similar analysis of the *costs* was impossible when such an analysis was in fact possible [using the social cost of carbon tool].”¹¹⁸

Nor can CEQ’s proffered rationale save its unlawful approach. In particular, CEQ dismisses the social cost of carbon on the basis that the IWG developed the tool for evaluation of regulatory actions and not for socio-economic analysis under NEPA.¹¹⁹ CEQ cannot reasonably dismiss this tool on the basis that it was not created for the precise purpose of aiding NEPA review. Such reasoning is nonsensical: it would allow agencies to dismiss a whole host of reports, tools, and methods—including some of the GHG accounting tools identified on CEQ’s own website—on the basis that they were not created specifically for the NEPA process,¹²⁰ in violation of NEPA’s purpose of driving informed decision-making. Indeed, in *High Country*, the court rejected this exact argument, observing that it did not “explain why these agencies believed the protocol was inaccurate or not useful in this instance.”¹²¹ The court recognized that even if the IWG did not design the social cost of carbon specifically for the NEPA process, the tool could still provide useful information for the NEPA decision-making process, particularly where an agency decides to quantify benefits of a project. Further, even if the social cost of carbon were not an appropriate tool for the NEPA process (it is), CEQ does not—because it cannot—explain why agencies could not use a different climate impact metric.

Consistent with NEPA, CEQ should revise the Draft Guidance to recommend a balanced approach that quantifies both the costs—including the social cost of carbon—and the benefits of proposed actions to ensure that federal agencies and the public have all necessary information about the potential environmental consequences of federal actions.¹²² In 2016, CEQ stated the social cost of carbon “provides a harmonized, interagency metric that can give decision makers and the public useful information for their NEPA review.”¹²³ Now, three years later, CEQ appears to have changed its mind, but fails to provide a reasoned basis for this change.¹²⁴

¹¹⁷ See *Ctr. for Biological Diversity*, 538 F.3d at 1198; *Columbia Basin Land Prot. Ass’n*, 643 F.2d at 595; *Mont. Env’tl. Info. Ctr.*, 274 F. Supp. 3d at 1095–99.

¹¹⁸ *High Country Conservation Advocates*, 52 F. Supp. 3d at 1191.

¹¹⁹ Draft Guidance, *supra* note 1, at 30,099.

¹²⁰ See NEPA.GOV, *Greenhouse Gas (GHG) Accounting Tools*, <https://ceq.doe.gov/guidance/ghg-accounting-tools.html>.

¹²¹ 52 F. Supp. 3d at 1192.

¹²² 42 U.S.C. § 4331.

¹²³ 2016 Guidance, *supra* note 3, at 33 n.86.

¹²⁴ *Federal Commc’ns Comm’n v. Fox Television Stations*, 556 U.S. 502, 515 (2009) (agency must supply “good reasons” for departing from prior policy).

E. CEQ’s Draft Guidance Impermissibly Discourages Consideration of Required Mitigation Measures

The Draft Guidance also conflicts with NEPA by discouraging the mitigation and exploration of reasonable alternatives to reduce climate change impacts. Regarding mitigation, the Draft Guidance flatly concludes: “NEPA does not require agencies to *adopt* mitigation measures.”¹²⁵ While it is true that NEPA does not require agencies to *adopt* mitigation measures, courts interpret NEPA’s “hard look” requirement as requiring agencies to evaluate mitigation measures for a project that may impact the environment.¹²⁶ The Draft Guidance fails to recognize that, while agencies are not required to adopt mitigation measures, they must include a discussion of “appropriate mitigation measures not already included in the proposed action or alternative” where a proposed action may impact the environment.¹²⁷ Instead, CEQ’s Draft Guidance steers federal agencies away from a thorough assessment of mitigation measures for a proposed project that may significantly impact climate change.

NEPA requires federal agencies to consider possible mitigation strategies for a federal action at multiple points throughout the NEPA analysis: in defining the scope of the EIS, in discussing alternatives to the proposed action and consequences of that action, and in explaining its ultimate decision.¹²⁸ Courts have held that “mere lists of mitigation measures are insufficient” to satisfy NEPA.¹²⁹ Instead, courts look at whether an agency has provided “an assessment of whether the proposed mitigation measures can be effective . . . [and] whether anticipated environmental impacts can be avoided.”¹³⁰ As the Supreme Court has explained, omission of a “reasonably complete discussion of possible mitigation measures” undermines the action-forcing purpose of NEPA because it would prevent agencies and the public from fully evaluating the severity of the proposed action.¹³¹

The Draft Guidance encourages federal agencies to forgo consideration of mitigation measures addressing climate change impacts of the action. The resulting EIS may not present the agency, or the public, with a comprehensive understanding of the project’s overall environmental impacts. If an agency were to ignore mitigation measures to address GHG impacts, it likely would be unable to evaluate fully the impacts of a proposed action or an alternative, and thus would fail to fulfill the purpose of NEPA. By steering agencies away from

¹²⁵ Draft Guidance, *supra* note 1, at 30,098 (emphasis added).

¹²⁶ *Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F. 3d 1372, 1380 (9th Cir. 1998) (a mere listing of mitigation measures does not supply the reasoned analysis that NEPA requires).

¹²⁷ 40 C.F.R. § 1502.14(f) (emphasis added).

¹²⁸ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989); *see also* 40 C.F.R. §§ 1508.25(b), 1502.14(f), 1502.16(h), 1505.2(c).

¹²⁹ *Alaska Survival v. Surface Transp. Bd.*, 705 F.3d 1073, 1088 (9th Cir. 2013).

¹³⁰ *S. Fork Band Council of Western Shoshone of Nevada v. U.S. Dept. of Interior*, 588 F.3d 718, 727 (9th Cir. 2009); *High Sierra Hikers Ass’n v. Dept. of Interior*, 848 F. Supp. 2d 1036, 1054 (N.D. Cal. 2012) (“[a]n essential component of a reasonably complete mitigation discussion is an assessment of whether the proposed mitigation measures can be effective”).

¹³¹ *Robertson*, 490 U.S. at 352.

a comprehensive discussion of mitigation measures for a proposed agency action, the Draft Guidance undermines the action-forcing function of NEPA and, consequently, conflicts with the general purpose and requirements of NEPA.

Moreover, the Draft Guidance's suggestion that an agency need not consider potential mitigation measures could undercut the efficacy of an agency's cost-benefit analysis regarding a particular action's GHG emissions. The Ninth Circuit, for instance, overturned an agency's NEPA analysis that failed to consider the monetary benefit of mitigating GHG emissions, stating that the mitigation of those emissions was "the most significant benefit" of the more stringent regulatory alternative to the agency's proposed action.¹³²

The Draft Guidance's statement that NEPA does not require adoption of mitigation measures for climate change impacts is ill-advised and improper. Where a proposed project has climate change impacts, a robust analysis of mitigation measures from GHG emissions is required. CEQ should so instruct in any final guidance.

F. CEQ's Draft Guidance Should Direct Agencies to Consider Climate Adaptation and Resiliency

Increasing resiliency to a changing climate is a critically important challenge for many communities, yet the Draft Guidance does not even mention climate adaptation or resiliency. As discussed above, our States, cities, and localities are already experiencing climate change, and its effects will continue to worsen. To protect residents, infrastructure, and industries, states must adapt to address these impacts. Climate adaptation is a form of risk management that allows governments, utilities, businesses, and individuals to reduce the risk associated with a changing climate.¹³³ Climate resiliency improves a community's ability to weather the effects of climate change.¹³⁴ Because of the monumental costs associated with the effects of climate change, many climate adaptation measures are cost-effective. As the second volume of the Assessment found, "[p]roactive adaptation initiatives—including changes to policies, business operations, capital investments, and other steps—yield benefits in excess of their costs in the near term, as well as over the long term."¹³⁵ Since the effects of climate change are not felt evenly across society, proactive adaptation measures ensure that our most vulnerable residents—including low-income

¹³² *Center for Biological Diversity*, 538 F.3d at 1199.

¹³³ See *Assessment, Volume II*, *supra* note 9, at 1314, available at https://nca2018.globalchange.gov/downloads/NCA4_Ch28_Adaptation_Full.pdf. The U.S. Climate Resilience Toolkit defines "adaptation" as: "The process of adjusting to new (climate) conditions in order to reduce risks to valued assets." U.S. Climate Resilience Toolkit, Glossary, <https://toolkit.climate.gov/topics/built-environment/social-equity> (last visited July 14, 2019).

¹³⁴ The U.S. Climate Resilience Toolkit defines "resilience" as: "The capacity of a community, business, or natural environment to prevent, withstand, respond to, and recover from a disruption." U.S. Climate Resilience Toolkit, Glossary, *supra* note 133.

¹³⁵ *Assessment, Volume II*, *supra* note 9, at 1322.

communities and communities of color—avoid bearing the brunt of the effects of climate change.¹³⁶

Consideration of future adaptation and resiliency comports with NEPA’s mandates. As discussed above, NEPA and its implementing regulations require consideration of a changing climate because when preparing an EIS, agencies must describe the affected environment, including by projecting into the future in order to analyze an action’s environmental impacts and compare reasonable alternatives.¹³⁷ Because the climate is changing rapidly, the projections into the future (the future environment with the action, without the action, and reasonable alternatives) will often need to factor in the effects of climate change, including the ways a changing climate may alter the action. Accordingly, numerous courts have held that agencies acted arbitrarily and capriciously by failing to consider future conditions when analyzing the action’s environmental impacts.¹³⁸

The 2016 Guidance thus properly included a detailed discussion of how agencies must account for the impacts of climate change during NEPA reviews.¹³⁹ The 2016 Guidance directs agencies to consider “the ways in which a changing climate may impact the proposed action and any alternative actions”¹⁴⁰ Under the 2016 Guidance, agencies should describe the projected future state of the environment (i.e., the no action alternative) based on “authoritative climate change reports” and look at the expected life of the proposed action and its effects.¹⁴¹ Agencies should consider how climate change makes a resource, ecosystem, or human community susceptible to environmental impacts. As the 2016 Guidance notes, such considerations fall “squarely within the scope of NEPA.”¹⁴² It directs that this analysis should “inform decisions on whether to proceed with, and how to design, the proposed action to

¹³⁶ See U.S. Climate Resilience Toolkit, Social Equity, <https://toolkit.climate.gov/topics/built-environment/social-equity> (last visited July 14, 2019).

¹³⁷ 40 C.F.R. § 1502.15 (2019) (defining affected environment as “the environment of the area(s) to be affected or created by the alternatives under consideration”); see Jessica Wentz, *Planning for the Effects of Climate Change on Natural Resources*, 47 ENVTL. L. REV. 10,220, 10,222-23 (2017) (describing how NEPA and regulations require incorporation of climate change into analysis of action’s environmental impacts).

¹³⁸ See, e.g., *California ex. Rel. Imperial Country Air Pollution Control Dist. v. U.S. Dep’t of the Interior*, 767 F.3d 781 (9th Cir. 2014) (upholding EIS that analyzed effects of water transfer agreements on Salton Sea in southern California, in part, because it properly incorporated future conditions when establishing “no action” alternative); *American Canoe Ass’n v. White*, 277 F. Supp. 2d 1244 (N.D. Ala. 2003) (cumulative impact analysis for dam project was insufficient because it failed to consider future conditions of project); *AquAlliance v. U.S. Bureau of Reclamation*, 287 F. Supp. 3d 969, 1032 (E.D. Cal. 2018) (NEPA cumulative impact analysis in EIS analyzing water transfer program was insufficient because it failed to incorporate available information about likely change to future conditions due to climate change).

¹³⁹ 2016 Guidance, *supra* note 3, at 20-27.

¹⁴⁰ *Id.* at 9.

¹⁴¹ *Id.* at 20-21.

¹⁴² *Id.* at 21.

eliminate or mitigate impacts”¹⁴³ The 2016 Guidance provides useful direction on how, under NEPA, agencies should address the effects of climate change on the project and its impacts.

In sharp contrast to the 2016 Guidance, and despite the importance of climate adaptation and climate resiliency in project planning and environmental analysis, the Draft Guidance is virtually silent on the subject. In terms of analyzing the effects of a changing climate on the proposed action and the action’s impacts, the Draft Guidance only ambiguously advises that, “[w]hen relevant, agencies should consider whether the proposed action would be affected by foreseeable changes to the affected environment under a reasonable scenario”—again without defining those terms.¹⁴⁴ The States thus urge CEQ to readopt the 2016 Guidance’s discussion of climate impacts to account for adaptation and resiliency efforts.

Moreover, providing guidance directing federal agencies to address climate adaptation and resiliency in NEPA reviews would aid coordination among federal approval and planning processes and, as detailed below, with state and local agencies. CEQ regulations encourage agencies to integrate the NEPA process with other processes at the earliest possible time.¹⁴⁵ CEQ strongly encourages coordination of NEPA review with other federal approvals and planning processes, and with state and local agencies.¹⁴⁶ Since many federal agencies, state agencies, and local partners have laws, regulations, and policies that require them to address climate risk during planning and project development, robust NEPA guidance directing similar considerations will encourage consistency and ease such coordination. For example, U.S. Army Corps of Engineers policy requires it to integrate “climate change preparedness and resilience planning and actions in all activities,” and the National Park Service’s Coastal Adaptation Strategies Handbook provides policy and decision-making guidelines for addressing climate change impacts on vulnerable park resources.¹⁴⁷ The States accordingly request that any final guidance that CEQ issues on consideration of GHG emissions in NEPA reviews robustly addresses climate adaptation and resiliency.

¹⁴³ *Id.*

¹⁴⁴ Draft Guidance, *supra* note 1, at 30,098.

¹⁴⁵ 40 C.F.R. § 1501.2.

¹⁴⁶ See Council on Environmental Quality, Collaboration in NEPA (2007), https://www.energy.gov/sites/prod/files/CEQ_Collaboration_in_NEPA_10-2007.pdf; Council on Environmental Quality, *A Citizen’s Guide to the NEPA* (2007), https://ceq.doe.gov/docs/get-involved/Citizens_Guide_Dec07.pdf (“permitting and NEPA processes should be integrated or run concurrently in order to have an effective and efficient decision-making process”).

¹⁴⁷ U.S. Army Corps of Engineers, *Adaptation Policy Statement* (2014), <https://cdm16021.contentdm.oclc.org/utis/getfile/collection/p266001coll1/id/5255>; National Park Service, Coastal Adaptation Handbook (2016), https://www.nps.gov/subjects/climatechange/upload/CASH_FINAL_Document_111016.pdf.

V. CEQ'S DRAFT GUIDANCE SHOULD ENSURE CONSISTENCY BETWEEN NEPA AND STATE ENVIRONMENTAL ANALYSES

The States have a wealth of experience implementing state environmental review statutes and ensuring coordination between NEPA and its state analogues. In developing the Draft Guidance, CEQ should consider ways to ensure that this coordination is as streamlined and smooth as possible. Moreover, CEQ should look to our States for guidance on quantification of GHG emissions and assessment of climate impacts.

First, coordination between state and federal environmental reviews is a critical component of planning for major projects. CEQ should revise the Draft Guidance to encourage agencies to coordinate analysis under NEPA with state environmental reviews that require analysis and mitigation of climate change impacts, such as the California Environmental Quality Act. NEPA coordination with state environmental review laws would thus be improved by robust guidance encouraging federal agencies to likewise incorporate climate resiliency and adaptation in NEPA review. Federal and state environmental review processes can be coordinated for projects requiring both federal and state action.¹⁴⁸ The regulations implementing New York State's environmental review law require an environmental impact statement to identify and discuss measures to avoid or reduce both an action's impacts on climate change and associated impacts due to the effects of climate change such as sea level rise and flooding.¹⁴⁹ The Washington State Department of Transportation ("WSDOT") requires all WSDOT projects subject to NEPA and state environmental review to follow its *Guidance - Project-Level Greenhouse Gas Evaluations under NEPA and SEPA* and directs projects to consider climate change impacts and ways to improve the resilience of transportation assets.¹⁵⁰ Given these requirements, NEPA and state-level analysis can best be coordinated if NEPA reviews also address these important considerations.

Second, CEQ should look to states for guidance on quantitative GHG and climate change analyses under NEPA. As discussed in Section IV.B above, California agencies have been quantifying GHG emissions and assessing climate change impacts associated with projects since at least 2006. As noted in California's 2015 OPR Comments submitted regarding the previous CEQ draft GHG guidance, emissions from many projects are easily quantified using existing

¹⁴⁸ See, e.g., 6 N.Y.C.R.R. § 617.15 (as long as NEPA EIS is sufficient for findings required, state and local agencies may rely on NEPA EIS to meet their requirements under New York State environmental review); Mass. Gen. Laws. c. 30, § 62G (allowing submission of NEPA EIS in lieu of state environmental impact report); 301 Code Mass. Regs. § 11.09(c) (authorizing special review procedures including coordination with other permitting agencies and consolidation of federal and state review processes).

¹⁴⁹ 6 N.Y.C.R.R. § 617.9(b)(5)(iii)(i).

¹⁵⁰ Washington State Dep't of Transportation, *WSDOT Guidance - Project-Level Greenhouse Gas Evaluations under NEPA and SEPA* (2018); *WSDOT, Guidance for NEPA and SEPA Project-Level Climate Change Evaluations* (Jan. 2017 update), <https://www.wsdot.wa.gov/environment/technical/disciplines/air-quality-noise-energy/addressing-climate-change> & <https://www.wsdot.wa.gov/sites/default/files/2019/02/08/ENV-ANE-GHGGuidance.pdf>.

tools. OPR noted that “quantification of GHG emissions is possible for a wide range of projects using currently available tools.”¹⁵¹ This is not unique to California; such tools are widely available to the federal government, in connection with federal projects, as well. Indeed, the available tools have improved, and their use has become widespread.¹⁵²

States also provide useful guideposts in considering climate impacts generally. For example, Massachusetts law requires that for all administrative approvals and decisions, the agency, department, board, commission, or authority “consider reasonably foreseeable climate change impacts, including additional GHG emissions, and effects, such as predicted sea level rise.”¹⁵³ In New York, state law requires consideration of future physical climate risk due to sea level rise, storm surge and flooding for a number of specified permitting and funding decisions.¹⁵⁴ California’s Sea Level Rise guidance provides methodology for state and local governments to analyze and assess the risks associated with sea level rise, and to incorporate sea level rise into their planning, permitting, and investment decisions.¹⁵⁵

VI. CEQ SHOULD WITHDRAW THE DRAFT GUIDANCE AND ADOPT AN UPDATED VERSION OF THE 2016 GUIDANCE

For the reasons articulated above, CEQ’s Draft Guidance inadequately advises federal agencies on the assessment of GHG emissions and the climate change impacts of projects during NEPA review. The Draft Guidance avoids addressing climate change and its impacts, fails to clarify the proper analysis of indirect climate change effects, confuses and weakens GHG quantification requirements, minimizes the consideration of cumulative impacts and other components of a proper NEPA analysis, improperly supports an unbalanced approach to cost-benefit analysis, discourages consideration of mitigation and alternatives to reduce climate impacts, and fails even to mention consideration of measures to improve climate adaptation and resiliency. The result is a document that conflicts with the statutory requirements of NEPA and does not further NEPA’s purposes of promoting informed decision-making and identifying environmental impacts. Instead, the Draft Guidance largely identifies opportunities for—and indeed appears to encourage—agencies to avoid adequately assessing GHG emissions and climate impacts of proposed projects.

Rather than pursue this inadequate and unlawful approach to analyzing GHG emissions and climate impacts, CEQ should withdraw its Draft Guidance. The States urge CEQ instead to

¹⁵¹ Cal. Natural Resources Agency, *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*, at 21 (Dec. 2009).

¹⁵² 2015 OPR Comments, *supra* note 92, at 4.

¹⁵³ State of Massachusetts, 2012: Mass. Gen. Laws c. 30, § 61.

¹⁵⁴ See New York State Department of Environmental Conservation, Community Risk and Resiliency Act (CRRRA) Provisions, <https://www.dec.ny.gov/energy/104113.html> (last visited July 15, 2019).

¹⁵⁵ Cal. Natural Resources Agency, *State of California Sea Level Rise Guidance* (2018), http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf.

adopt an updated version of the 2016 Guidance that fully complies with NEPA and current caselaw and acknowledges and reflects the uniquely catastrophic threat of climate change. The 2016 Guidance reflects years of analysis as well as thoughtful recommendations offered by numerous stakeholders, and relies on longstanding NEPA principles.¹⁵⁶ Ensuring robust analysis of greenhouse gas emissions and climate impacts of federal projects is essential for informing decisionmakers and the public of the potential environmental impacts. NEPA demands this transparent and comprehensive process.

¹⁵⁶ 2016 Guidance, *supra* note 3, at 2 & n.4.

If we can provide additional information that would be helpful in considering these comments, or if you wish to discuss with us any issue raised above, please do not hesitate to contact the undersigned.

Respectfully submitted,

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ATTACHMENT 1



EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
WASHINGTON, D.C. 20503

August 1, 2016

MEMORANDUM FOR HEADS OF FEDERAL DEPARTMENTS AND AGENCIES

FROM:  CHRISTINA GOLDFUSS
COUNCIL ON ENVIRONMENTAL QUALITY

SUBJECT: Final Guidance for Federal Departments and Agencies on
Consideration of Greenhouse Gas Emissions and the Effects of
Climate Change in National Environmental Policy Act Reviews

I. INTRODUCTION

The Council on Environmental Quality (CEQ) issues this guidance to assist Federal agencies in their consideration of the effects of greenhouse gas (GHG) emissions¹ and climate change when evaluating proposed Federal actions in accordance with the National Environmental Policy Act (NEPA) and the CEQ Regulations Implementing the Procedural Provisions of NEPA (CEQ Regulations).² This guidance will facilitate compliance with existing NEPA requirements, thereby improving the efficiency and consistency of reviews of proposed Federal actions for agencies, decision makers, project proponents, and the public.³ The guidance provides Federal agencies a common

¹ For purposes of this guidance, CEQ defines GHGs in accordance with Section 19(m) of Exec. Order No. 13693, Planning for Federal Sustainability in the Next Decade, 80 Fed. Reg. 15869, 15882 (Mar. 25, 2015) (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride, and sulfur hexafluoride). Also for purposes of this guidance, "emissions" includes release of stored GHGs as a result of land management activities affecting terrestrial GHG pools such as, but not limited to, carbon stocks in forests and soils, as well as actions that affect the future changes in carbon stocks. The common unit of measurement for GHGs is metric tons of CO₂ equivalent (mt CO₂-e).

² See 42 U.S.C. 4321 et seq.; 40 CFR Parts 1500–1508.

³ This guidance is not a rule or regulation, and the recommendations it contains may not apply to a particular situation based upon the individual facts and circumstances. This guidance does not change or substitute for any law, regulation, or other legally binding

approach for assessing their proposed actions, while recognizing each agency's unique circumstances and authorities.⁴

Climate change is a fundamental environmental issue, and its effects fall squarely within NEPA's purview.⁵ Climate change is a particularly complex challenge given its global nature and the inherent interrelationships among its sources, causation, mechanisms of action, and impacts. Analyzing a proposed action's GHG emissions and the effects of climate change relevant to a proposed action—particularly how climate change may change an action's environmental effects—can provide useful information to decision makers and the public.

CEQ is issuing the guidance to provide for greater clarity and more consistency in how agencies address climate change in the environmental impact assessment process. This guidance uses longstanding NEPA principles because such an analysis should be similar to the analysis of other environmental impacts under NEPA. The guidance is intended to assist agencies in disclosing and considering the reasonably foreseeable effects of proposed actions that are relevant to their decision-making processes. It confirms that agencies should provide the public and decision makers with explanations of the basis for agency determinations.

requirement, and is not legally enforceable. The use of non-mandatory language such as "guidance," "recommend," "may," "should," and "can," is intended to describe CEQ policies and recommendations. The use of mandatory terminology such as "must" and "required" is intended to describe controlling requirements under the terms of NEPA and the CEQ regulations, but this document does not affect legally binding requirements.

⁴ This guidance also addresses recommendations offered by a number of stakeholders. See President's State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience, *Recommendations to the President* (November 2014), p. 20 (recommendation 2.7), available at www.whitehouse.gov/sites/default/files/docs/task_force_report_0.pdf; U.S. Government Accountability Office, *Future Federal Adaptation Efforts Could Better Support Local Infrastructure Decision Makers*, (Apr. 2013), available at <http://www.gao.gov/assets/660/653741.pdf>. Public comments on drafts of this guidance document are available at <http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/comments>.

⁵ NEPA recognizes "the profound impact of man's activity on the interrelations of all components of the natural environment." (42 U.S.C. 4331(a)). It was enacted to, *inter alia*, "promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man." (42 U.S.C. 4321).

Focused and effective consideration of climate change in NEPA reviews⁶ will allow agencies to improve the quality of their decisions. Identifying important interactions between a changing climate and the environmental impacts from a proposed action can help Federal agencies and other decision makers identify practicable opportunities to reduce GHG emissions, improve environmental outcomes, and contribute to safeguarding communities and their infrastructure against the effects of extreme weather events and other climate-related impacts.

Agencies implement NEPA through one of three levels of NEPA analysis: a Categorical Exclusion (CE); an Environmental Assessment (EA); or an Environmental Impact Statement (EIS). This guidance is intended to help Federal agencies ensure their analysis of potential GHG emissions and effects of climate change in an EA or EIS is commensurate with the extent of the effects of the proposed action.⁷ Agencies have discretion in how they tailor their individual NEPA reviews to accommodate the approach outlined in this guidance, consistent with the CEQ Regulations and their respective implementing procedures and policies.⁸ CEQ does not expect that implementation of this guidance will require agencies to develop new NEPA implementing procedures. However, CEQ recommends that agencies review their NEPA procedures and propose any updates they deem necessary or appropriate to facilitate their consideration of GHG emissions and climate change.⁹ CEQ will review agency

⁶ The term “NEPA review” is used to include the analysis, process, and documentation required under NEPA. While this document focuses on NEPA reviews, agencies are encouraged to analyze GHG emissions and climate-resilient design issues early in the planning and development of proposed actions and projects under their substantive authorities.

⁷ See 40 CFR 1502.2(b) (Impacts shall be discussed in proportion to their significance); 40 CFR 1502.15 (Data and analyses in a statement shall be commensurate with the importance of the impact...).

⁸ See 40 CFR 1502.24 (Methodology and scientific accuracy).

⁹ See 40 CFR 1507.3. Agency NEPA implementing procedures can be, but are not required to be, in the form of regulation. Section 1507.3 encourages agencies to publish explanatory guidance, and agencies also should consider whether any updates to explanatory guidance are necessary. Agencies should review their policies and implementing procedures and revise them as necessary to ensure full compliance with NEPA.

proposals for revising their NEPA procedures, including any revision of CEs, in light of this guidance.

As discussed in this guidance, when addressing climate change agencies should consider: (1) The potential effects of a proposed action on climate change as indicated by assessing GHG emissions (e.g., to include, where applicable, carbon sequestration);¹⁰ and, (2) The effects of climate change on a proposed action and its environmental impacts.

This guidance explains the application of NEPA principles and practices to the analysis of GHG emissions and climate change, and

- Recommends that agencies quantify a proposed agency action's projected direct and indirect GHG emissions, taking into account available data and GHG quantification tools that are suitable for the proposed agency action;
- Recommends that agencies use projected GHG emissions (to include, where applicable, carbon sequestration implications associated with the proposed agency action) as a proxy for assessing potential climate change effects when preparing a NEPA analysis for a proposed agency action;
- Recommends that where agencies do not quantify a proposed agency action's projected GHG emissions because tools, methodologies, or data inputs are not reasonably available to support calculations for a quantitative analysis, agencies include a qualitative analysis in the NEPA document and explain the basis for determining that quantification is not reasonably available;

¹⁰ Carbon sequestration is the long-term carbon storage in plants, soils, geologic formations, and oceans.

- Discusses methods to appropriately analyze reasonably foreseeable direct, indirect, and cumulative GHG emissions and climate effects;
- Guides the consideration of reasonable alternatives and recommends agencies consider the short- and long-term effects and benefits in the alternatives and mitigation analysis;
- Advises agencies to use available information when assessing the potential future state of the affected environment in a NEPA analysis, instead of undertaking new research, and provides examples of existing sources of scientific information;
- Counsels agencies to use the information developed during the NEPA review to consider alternatives that would make the actions and affected communities more resilient to the effects of a changing climate;
- Outlines special considerations for agencies analyzing biogenic carbon dioxide sources and carbon stocks associated with land and resource management actions under NEPA;
- Recommends that agencies select the appropriate level of NEPA review to assess the broad-scale effects of GHG emissions and climate change, either to inform programmatic (e.g., landscape-scale) decisions, or at both the programmatic and tiered project- or site-specific level, and to set forth a reasoned explanation for the agency's approach; and
- Counsels agencies that the "rule of reason" inherent in NEPA and the CEQ Regulations allows agencies to determine, based on their expertise and

experience, how to consider an environmental effect and prepare an analysis based on the available information.

II. BACKGROUND

A. NEPA

NEPA is designed to promote consideration of potential effects on the human environment¹¹ that would result from proposed Federal agency actions, and to provide the public and decision makers with useful information regarding reasonable alternatives¹² and mitigation measures to improve the environmental outcomes of Federal agency actions. NEPA ensures that the environmental effects of proposed actions are taken into account before decisions are made and informs the public of significant environmental effects of proposed Federal agency actions, promoting transparency and accountability concerning Federal actions that may significantly affect the quality of the human environment. NEPA reviews should identify measures to avoid, minimize, or mitigate adverse effects of Federal agency actions. Better analysis and decisions are the ultimate goal of the NEPA process.¹³

Inherent in NEPA and the CEQ Regulations is a “rule of reason” that allows agencies to determine, based on their expertise and experience, how to consider an environmental effect and prepare an analysis based on the available information. The usefulness of that information to the decision-making process and the public, and the

¹¹ 40 CFR 1508.14 (“‘Human environment’ shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment.”).

¹² 40 CFR 1508.25(b) (“Alternatives, which include: (1) No action alternative. (2) Other reasonable courses of actions. (3) Mitigation measures (not in the proposed action).”).

¹³ 40 CFR 1500.1(c) (“Ultimately, of course, it is not better documents but better decisions that count. NEPA’s purpose is not to generate paperwork—even excellent paperwork—but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.”).

extent of the anticipated environmental consequences are important factors to consider when applying that “rule of reason.”

B. Climate Change

Climate change science continues to expand and refine our understanding of the impacts of anthropogenic GHG emissions. CEQ’s first Annual Report in 1970 referenced climate change, indicating that “[m]an may be changing his weather.”¹⁴ At that time, the mean level of atmospheric carbon dioxide (CO₂) had been measured as increasing to 325 parts per million (ppm) from an average of 280 ppm pre-Industrial levels.¹⁵ Since 1970, the concentration of atmospheric carbon dioxide has increased to approximately 400 ppm (2015 globally averaged value).¹⁶ Since the publication of CEQ’s first Annual Report, it has been determined that human activities have caused the carbon dioxide content of the atmosphere of our planet to increase to its highest level in at least 800,000 years.¹⁷

It is now well established that rising global atmospheric GHG emission concentrations are significantly affecting the Earth’s climate. These conclusions are built upon a scientific record that has been created with substantial contributions from the

¹⁴ See CEQ, *Environmental Quality: The First Annual Report*, p. 93 (August 1970); available at https://ceq.doe.gov/ceq_reports/annual_environmental_quality_reports.html.

¹⁵ See USGCRP, *Climate Change Impacts in the United States: The Third National Climate Assessment* (Jerry M. Melillo, Terese (T.C.) Richmond, & Gary W. Yohe eds., 2014) [hereinafter “Third National Climate Assessment”], *Appendix 3: Climate Science Supplement*, p. 739; EPA, April 2015: *Inventory of U.S. Greenhouse Emissions and Sinks 1990-2013*, available at <https://www3.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Main-Text.pdf>. See also Hartmann, D.L., A.M.G. Klein Tank, M. Rusticucci, et al., 2013 *Observations: Atmosphere and Surface*. In *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K., et al. (eds.)]. Cambridge University Press: Cambridge, United Kingdom and New York, NY, USA. Available at http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter02_Final.pdf.

¹⁶ See Ed Dlugokencky & Pieter Tans, National Oceanic and Atmospheric Administration/Earth System Research Laboratory, <http://www.esrl.noaa.gov/gmd/ccgg/trends/global.html>.

¹⁷ See <http://earthobservatory.nasa.gov/Features/CarbonCycle>; University of California Riverside, National Aeronautics and Space Administration (NASA), and Riverside Unified School District, *Down to Earth: Climate Change*, <http://globalclimate.ucr.edu/resources.html>; USGCRP, *Third National Climate Assessment, Appendix 3: Climate Science Supplement*, p. 736 (“Although climate changes in the past have been caused by natural factors, human activities are now the dominant agents of change. Human activities are affecting climate through increasing atmospheric levels of heat-trapping gases and other substances, including particles.”).

United States Global Change Research Program (USGCRP), which informs the United States' response to global climate change through coordinated Federal programs of research, education, communication, and decision support.¹⁸ Studies have projected the effects of increasing GHGs on many resources normally discussed in the NEPA process, including water availability, ocean acidity, sea-level rise, ecosystem functions, energy production, agriculture and food security, air quality and human health.¹⁹

Based primarily on the scientific assessments of the USGCRP, the National Research Council, and the Intergovernmental Panel on Climate Change, in 2009 the Environmental Protection Agency (EPA) issued a finding that the changes in our climate caused by elevated concentrations of greenhouse gases in the atmosphere are reasonably anticipated to endanger the public health and public welfare of current and future generations.²⁰ In 2015, EPA acknowledged more recent scientific assessments that “highlight the urgency of addressing the rising concentration of CO₂ in the atmosphere,” finding that certain groups are especially vulnerable to climate-related effects.²¹ Broadly

¹⁸ See Global Change Research Act of 1990, Pub. L. 101–606, Sec. 103 (November 16, 1990). For additional information on the United States Global Change Research Program [hereinafter “USGCRP”], visit <http://www.globalchange.gov>. The USGCRP, formerly the Climate Change Science Program, coordinates and integrates the activities of 13 Federal agencies that conduct research on changes in the global environment and their implications for society. The USGCRP began as a Presidential initiative in 1989 and was codified in the Global Change Research Act of 1990 (Public Law 101–606). USGCRP-participating agencies are the Departments of Agriculture, Commerce, Defense, Energy, Interior, Health and Human Services, State, and Transportation; the U.S. Agency for International Development, the Environmental Protection Agency, NASA, the National Science Foundation, and the Smithsonian Institution.

¹⁹ See USGCRP, *Third National Climate Assessment*, available at http://nca2014.globalchange.gov/system/files_force/downloads/low/NCA3_Climate_Change_Impacts_in_the_United%20States_Low_Res.pdf?download=1; IPCC, *Climate Change 2014 Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (R.K. Pachauri, & L.A. Meyer eds., 2014), available at https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full.pdf; see also <http://www.globalchange.gov>; 40 CFR 1508.8 (effects include ecological, aesthetic, historic, cultural, economic, social, and health effects); USGCRP, *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*, available at <https://health2016.globalchange.gov/>.

²⁰ See generally *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66496 (Dec. 15, 2009). (For example, at 66497-98: “[t]he evidence concerning how human-induced climate change may alter extreme weather events also clearly supports a finding of endangerment, given the serious adverse impacts that can result from such events and the increase in risk, even if small, of the occurrence and intensity of events such as hurricanes and floods. Additionally, public health is expected to be adversely affected by an increase in the severity of coastal storm events due to rising sea levels”).

²¹ See EPA, *Final Rule for Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, 80 Fed. Reg. 64661, 64677 (Oct. 23, 2015) (“Certain groups, including children, the elderly, and the poor, are most vulnerable to climate-related effects. Recent studies also find that certain communities, including low-income communities and some communities of color ... are disproportionately affected by certain climate change related impacts—including heat waves, degraded air quality, and

stated, the effects of climate change observed to date and projected to occur in the future include more frequent and intense heat waves, longer fire seasons and more severe wildfires, degraded air quality, more heavy downpours and flooding, increased drought, greater sea-level rise, more intense storms, harm to water resources, harm to agriculture, ocean acidification, and harm to wildlife and ecosystems.²²

III. CONSIDERING THE EFFECTS OF GHG EMISSIONS AND CLIMATE CHANGE

This guidance is applicable to all Federal actions subject to NEPA, including site-specific actions, certain funding of site-specific projects, rulemaking actions, permitting decisions, and land and resource management decisions.²³ This guidance does not – and cannot – expand the range of Federal agency actions that are subject to NEPA.

Consistent with NEPA, Federal agencies should consider the extent to which a proposed action and its reasonable alternatives would contribute to climate change, through GHG emissions, and take into account the ways in which a changing climate may impact the proposed action and any alternative actions, change the action’s environmental effects over the lifetime of those effects, and alter the overall environmental implications of such actions.

This guidance is intended to assist agencies in disclosing and considering the effects of GHG emissions and climate change along with the other reasonably foreseeable environmental effects of their proposed actions. This guidance does not establish any

extreme weather events—which are associated with increased deaths, illnesses, and economic challenges. Studies also find that climate change poses particular threats to the health, well-being, and ways of life of indigenous peoples in the U.S.”).

²² See <http://www.globalchange.gov/climate-change/impacts-society> and Third National Climate Assessment, Chapters 3-15 (Sectors) and Chapters 16-25 (Regions), available at <http://nca2014.globalchange.gov/downloads>.

²³ See 40 CFR 1508.18.

particular quantity of GHG emissions as “significantly” affecting the quality of the human environment or give greater consideration to the effects of GHG emissions and climate change over other effects on the human environment.

A. GHG Emissions as a Proxy for the Climate Change Impacts of a Proposed Action

In light of the global scope of the impacts of GHG emissions, and the incremental contribution of each single action to global concentrations, CEQ recommends agencies use the projected GHG emissions associated with proposed actions as a proxy for assessing proposed actions’ potential effects on climate change in NEPA analysis.²⁴ This approach, together with providing a qualitative summary discussion of the impacts of GHG emissions based on authoritative reports such as the USGCRP’s National Climate Assessments and the Impacts of Climate Change on Human Health in the United States, a Scientific Assessment of the USGCRP, allows an agency to present the environmental and public health impacts of a proposed action in clear terms and with sufficient information to make a reasoned choice between no action and other alternatives and appropriate mitigation measures, and to ensure the professional and scientific integrity of the NEPA review.²⁵

Climate change results from the incremental addition of GHG emissions from millions of individual sources,²⁶ which collectively have a large impact on a global scale.

²⁴ See 40 CFR 1502.16, 1508.9.

²⁵ See 40 CFR 1500.1, 1502.24 (requiring agencies to use high quality information and ensure the professional and scientific integrity of the discussions and analyses in environmental impact statements).

²⁶ Some sources emit GHGs in quantities that are orders of magnitude greater than others. See EPA, *Greenhouse Gas Reporting Program 2014 Reported Data*, Figure 2: Direct GHG Emissions Reported by Sector (2014), available at <https://www.epa.gov/ghgreporting/ghgrp-2014-reported-data> (amounts of GHG emissions by sector); *Final Rule for Carbon Pollution Emission Guidelines for Existing Stationary Sources Electric Utility Generating Units*, 80 Fed. Reg. 64661, 64663, 64689 (Oct. 23, 2015) (regulation of GHG emissions from fossil fuel-fired electricity generating power plants); *Oil and Natural Gas Sector Emission Standards for New, Reconstructed, and Modified Sources*, 81 Fed. Reg. 34824, 35830 (June 3, 2016) (regulation of GHG emissions from oil and gas sector).

CEQ recognizes that the totality of climate change impacts is not attributable to any single action, but are exacerbated by a series of actions including actions taken pursuant to decisions of the Federal Government. Therefore, a statement that emissions from a proposed Federal action represent only a small fraction of global emissions is essentially a statement about the nature of the climate change challenge, and is not an appropriate basis for deciding whether or to what extent to consider climate change impacts under NEPA. Moreover, these comparisons are also not an appropriate method for characterizing the potential impacts associated with a proposed action and its alternatives and mitigations because this approach does not reveal anything beyond the nature of the climate change challenge itself: the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large impact. When considering GHG emissions and their significance, agencies should use appropriate tools and methodologies for quantifying GHG emissions and comparing GHG quantities across alternative scenarios. Agencies should not limit themselves to calculating a proposed action's emissions as a percentage of sector, nationwide, or global emissions in deciding whether or to what extent to consider climate change impacts under NEPA.

1. GHG Emissions Quantification and Relevant Tools

This guidance recommends that agencies quantify a proposed agency action's projected direct and indirect GHG emissions. Agencies should be guided by the principle that the extent of the analysis should be commensurate with the quantity of projected GHG emissions and take into account available data and GHG quantification tools that

are suitable for and commensurate with the proposed agency action.²⁷ The rule of reason and the concept of proportionality caution against providing an in-depth analysis of emissions regardless of the insignificance of the quantity of GHG emissions that would be caused by the proposed agency action.

Quantification tools are widely available, and are already in broad use in the Federal and private sectors, by state and local governments, and globally.²⁸ Such quantification tools and methodologies have been developed to assist institutions, organizations, agencies, and companies with different levels of technical sophistication, data availability, and GHG source profiles. When data inputs are reasonably available to support calculations, agencies should conduct GHG analysis and disclose quantitative estimates of GHG emissions in their NEPA reviews. These tools can provide estimates of GHG emissions, including emissions from fossil fuel combustion and estimates of GHG emissions and carbon sequestration for many of the sources and sinks potentially affected by proposed resource management actions.²⁹ When considering which tool(s) to employ, it is important to consider the proposed action's temporal scale, and the availability of input data.³⁰ Examples of the kinds of methodologies agencies might consider using are presented in CEQ's 2012 Guidance for Accounting and Reporting GHG Emissions for a wide variety of activities associated with Federal agency operations.³¹ When an agency determines that quantifying GHG emissions would not be

²⁷ See 40 CFR 1500.1(b) ("Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail."); 40 CFR 1502.2(b) (Impacts shall be discussed in proportion to their significance); 40 CFR 1502.15 (Data and analyses in a statement shall be commensurate with the importance of the impact...).

²⁸ See https://ceq.doe.gov/current_developments/GHG-accounting-tools.html.

²⁹ For example, USDA's COMET-Farm tool can be used to assess the carbon sequestration of existing agricultural activities along with the reduction in carbon sequestration (emissions) of project-level activities, <http://cometfarm.nrel.colostate.edu/>. Examples of other tools are available at https://ceq.doe.gov/current_developments/GHG-accounting-tools.html.

³⁰ See 40 CFR 1502.22.

³¹ See https://www.whitehouse.gov/sites/default/files/microsites/ceq/revised_federal_greenhouse_gas_accounting_and_reporting_guidance_

warranted because tools, methodologies, or data inputs are not reasonably available, the agency should provide a qualitative analysis and its rationale for determining that the quantitative analysis is not warranted. A qualitative analysis can rely on sector-specific descriptions of the GHG emissions of the category of Federal agency action that is the subject of the NEPA analysis.

When updating their NEPA procedures³² and guidance, agencies should coordinate with CEQ to identify 1) the actions that normally warrant quantification of their GHG emissions, and consideration of the relative GHG emissions associated with alternative actions and 2) agency actions that normally do not warrant such quantification because tools, methodologies, or data inputs are not reasonably available. The determination of the potential significance of a proposed action remains subject to agency practice for the consideration of context and intensity, as set forth in the CEQ Regulations.³³

2. The Scope of the Proposed Action

In order to assess effects, agencies should take account of the proposed action – including “connected” actions³⁴ – subject to reasonable limits based on feasibility and practicality. Activities that have a reasonably close causal relationship to the Federal action, such as those that may occur as a predicate for a proposed agency action or as a consequence of a proposed agency action, should be accounted for in the NEPA analysis.

060412.pdf. Federal agencies’ Strategic Sustainability Performance Plans reflecting their annual GHG inventories and reports under Executive Order 13514 are available at <https://www.performance.gov/node/3406/view?view=public#supporting-info>.

³² See 40 CFR 1507.3.

³³ 40 CFR 1508.27 (“‘Significantly’ as used in NEPA requires considerations of both context and intensity: (a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. . . . (b) Intensity. This refers to the severity of impact.”).

³⁴ 40 CFR 1508.25(a) (Actions are connected if they: (i) Automatically trigger other actions which may require environmental impact statements; (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously, or; (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.).

For example, NEPA reviews for proposed resource extraction and development projects typically include the reasonably foreseeable effects of various phases in the process, such as clearing land for the project, building access roads, extraction, transport, refining, processing, using the resource, disassembly, disposal, and reclamation. Depending on the relationship between any of the phases, as well as the authority under which they may be carried out, agencies should use the analytical scope that best informs their decision making.

The agency should focus on significant potential effects and conduct an analysis that is proportionate to the environmental consequences of the proposed action.³⁵ Agencies can rely on basic NEPA principles to determine and explain the reasonable parameters of their analyses in order to disclose the reasonably foreseeable effects that may result from their proposed actions.³⁶

3. Alternatives

Considering alternatives, including alternatives that mitigate GHG emissions, is fundamental to the NEPA process and accords with NEPA Sections 102(2)(C) and 102(2)(E).³⁷ The CEQ regulations emphasize that the alternatives analysis is the heart of the EIS under NEPA Section 102(2)(C).³⁸ NEPA Section 102(2)(E) provides an independent requirement for the consideration of alternatives in environmental documents.³⁹ NEPA calls upon agencies to use the NEPA process to “identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.”⁴⁰ The requirement to

³⁵ See 40 CFR 1501.7(a)(3), 1502.2(b), and 1502.15.

³⁶ See 40 CFR 1502.16.

³⁷ 42 U.S.C. 4332(2)(C), 4332(2)(E); 40 CFR 1502.14, 1508.9(b).

³⁸ 40 CFR 1502.14.

³⁹ See 40 CFR 1500.2, 1508.9(b).

⁴⁰ 40 CFR 1500.2(c).

consider alternatives ensures that agencies account for approaches with no, or less, adverse environmental effects for a particular resource.

Consideration of alternatives also provides each agency decision maker the information needed to examine other possible approaches to a particular proposed action (including the no action alternative) that could alter the environmental impact or the balance of factors considered in making the decision. Agency decisions are aided when there are reasonable alternatives that allow for comparing GHG emissions and carbon sequestration potential, trade-offs with other environmental values, and the risk from – and resilience to – climate change inherent in a proposed action and its design.

Agencies must consider a range of reasonable alternatives consistent with the level of NEPA review (e.g., EA or EIS) and the purpose and need for the proposed action, as well as reasonable mitigation measures if not already included in the proposed action or alternatives.⁴¹ Accordingly, a comparison of these alternatives based on GHG emissions and any potential mitigation measures can be useful to advance a reasoned choice among alternatives and mitigation actions. When conducting the analysis, an agency should compare the anticipated levels of GHG emissions from each alternative – including the no-action alternative – and mitigation actions to provide information to the public and enable the decision maker to make an informed choice.

Agencies should consider reasonable alternatives and mitigation measures to reduce action-related GHG emissions or increase carbon sequestration in the same fashion as they consider alternatives and mitigation measures for any other environmental effects. NEPA, the CEQ Regulations, and this guidance do not require the decision

⁴¹ See 42 U.S.C. 4332(2)(C), 4332(2)(E), and 40 CFR 1502.14(f), 1508.9(b). The purpose and need for action usually reflects both the extent of the agency's statutory authority and its policies.

maker to select the alternative with the lowest net level of emissions. Rather, they allow for the careful consideration of emissions and mitigation measures along with all the other factors considered in making a final decision.

4. Direct and Indirect Effects

If the direct and indirect GHG emissions can be quantified based on available information, including reasonable projections and assumptions, agencies should consider and disclose the reasonably foreseeable direct and indirect emissions when analyzing the direct and indirect effects of the proposed action.⁴² Agencies should disclose the information and any assumptions used in the analysis and explain any uncertainties.

To compare a project's estimated direct and indirect emissions with GHG emissions from the no-action alternative, agencies should draw on existing, timely, objective, and authoritative analyses, such as those by the Energy Information Administration, the Federal Energy Management Program, or Office of Fossil Energy of the Department of Energy.⁴³ In the absence of such analyses, agencies should use other available information. When such analyses or information for quantification is unavailable, or the complexity of comparing emissions from various sources would make quantification overly speculative, then the agency should quantify emissions to the extent that this information is available and explain the extent to which quantified emissions information is unavailable while providing a qualitative analysis of those emissions. As

⁴² For example, where the proposed action involves fossil fuel extraction, direct emissions typically include GHGs emitted during the process of exploring for or extracting the fossil fuel. The indirect effects of such an action that are reasonably foreseeable at the time would vary with the circumstances of the proposed action. For actions such as a Federal lease sale of coal for energy production, the impacts associated with the end-use of the fossil fuel being extracted would be the reasonably foreseeable combustion of that coal.

⁴³ For a current example, see Office of Fossil Energy, Nat'l Energy Tech. Lab., U.S. Dep't of Energy, *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States*, Pub. No. DOE/NETL-2014/1649 (2014), available at <http://energy.gov/sites/prod/files/2014/05/f16/Life%20Cycle%20GHG%20Perspective%20Report.pdf>.

with any NEPA analysis, the level of effort should be proportionate to the scale of the emissions relevant to the NEPA review.

5. Cumulative Effects

“Cumulative impact” is defined in the CEQ Regulations as the “impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.”⁴⁴ All GHG emissions contribute to cumulative climate change impacts. However, for most Federal agency actions CEQ does not expect that an EIS would be required based *solely* on the global significance of cumulative impacts of GHG emissions, as it would not be consistent with the rule of reason to require the preparation of an EIS for every Federal action that may cause GHG emissions regardless of the magnitude of those emissions.

Based on the agency identification and analysis of the direct and indirect effects of its proposed action, NEPA requires an agency to consider the cumulative impacts of its proposed action and reasonable alternatives.⁴⁵ As noted above, for the purposes of NEPA, the analysis of the effects of GHG emissions is essentially a cumulative effects analysis that is subsumed within the general analysis and discussion of climate change impacts. Therefore, direct and indirect effects analysis for GHG emissions will adequately address the cumulative impacts for climate change from the proposed action and its alternatives and a separate cumulative effects analysis for GHG emissions is not needed.

6. Short- and Long-Term Effects

⁴⁴ 40 CFR 1508.7.

⁴⁵ See 40 CFR 1502.16, 1508.7, 1508.8. See also CEQ Memorandum to Heads of Federal Agencies, *Guidance on the Consideration of Past Actions in Cumulative Effects Analysis*, June 24, 2005, available at https://ceq.doe.gov/nepa/regs/Guidance_on_CE.pdf.

When considering effects, agencies should take into account both the short- and long-term adverse and beneficial effects using a temporal scope that is grounded in the concept of reasonable foreseeability. Some proposed actions will have to consider effects at different stages to ensure the direct effects and reasonably foreseeable indirect effects are appropriately assessed; for example, the effects of construction are different from the effects of the operations and maintenance of a facility.

Biogenic GHG emissions and carbon stocks from some land or resource management activities, such as a prescribed burn of a forest or grassland conducted to limit loss of ecosystem function through wildfires or insect infestations, may result in short-term GHG emissions and loss of stored carbon, while in the longer term a restored, healthy ecosystem may provide long-term carbon sequestration. Therefore, the short- and long-term effects should be described in comparison to the no action alternative in the NEPA review.

7. Mitigation

Mitigation is an important component of the NEPA process that Federal agencies can use to avoid, minimize, and compensate for the adverse environmental effects associated with their actions. Mitigation, by definition, includes avoiding impacts, minimizing impacts by limiting them, rectifying the impact, reducing or eliminating the impacts over time, or compensating for them.⁴⁶ Consequently, agencies should consider reasonable mitigation measures and alternatives as provided for under existing CEQ Regulations and take into account relevant agency statutory authorities and policies. The NEPA process is also intended to provide useful advice and information to State, local

⁴⁶ See 40 CFR 1508.20, 1508.25 (Alternatives include mitigation measures not included in the proposed action).

and tribal governments and private parties so that the agencies can better coordinate with other agencies and organizations regarding the means to mitigate effects of their actions.⁴⁷ The NEPA process considers the effects of mitigation commitments made by project proponents or others and mitigation required under other relevant permitting and environmental review regimes.⁴⁸

As Federal agencies evaluate potential mitigation of GHG emissions and the interaction of a proposed action with climate change, the agencies should also carefully evaluate the quality of that mitigation to ensure it is additional, verifiable, durable, enforceable, and will be implemented.⁴⁹ Agencies should consider the potential for mitigation measures to reduce or mitigate GHG emissions and climate change effects when those measures are reasonable and consistent with achieving the purpose and need for the proposed action. Such mitigation measures could include enhanced energy efficiency, lower GHG-emitting technology, carbon capture, carbon sequestration (e.g., forest, agricultural soils, and coastal habitat restoration), sustainable land management practices, and capturing or beneficially using GHG emissions such as methane.

Finally, the CEQ Regulations and guidance recognize the value of monitoring to ensure that mitigation is carried out as provided in a record of decision or finding of no significant impact.⁵⁰ The agency's final decision on the proposed action should identify those mitigation measures that the agency commits to take, recommends, or requires

⁴⁷ NEPA directs Federal agencies to make "advice and information useful in restoring, maintaining, and enhancing the quality of the environment" available to States, Tribes, counties, cities, institutions and individuals. NEPA Sec. 102(2)(G).

⁴⁸ See CEQ Memorandum to Heads of Federal Agencies, *Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact*, 76 FR 3843 (Jan. 21, 2011) available at https://ceq.doe.gov/current_developments/docs/Mitigation_and_Monitoring_Guidance_14Jan2011.pdf.

⁴⁹ See Presidential Memorandum: *Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment* (<https://www.whitehouse.gov/the-press-office/2015/11/03/mitigating-impacts-natural-resources-development-and-encouraging-related>) defining "durability" and addressing additionality.

⁵⁰ See 40 CFR 1505.2(c), 1505.3. See also CEQ Memorandum to Heads of Federal Agencies, *Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact*, 76 FR 3843 (Jan. 21, 2011) available at https://ceq.doe.gov/current_developments/docs/Mitigation_and_Monitoring_Guidance_14Jan2011.pdf.

others to take. Monitoring is particularly appropriate to confirm the effectiveness of mitigation when that mitigation is adopted to reduce the impacts of a proposed action on affected resources already increasingly vulnerable due to climate change.

B. CONSIDERING THE EFFECTS OF CLIMATE CHANGE ON A PROPOSED ACTION AND ITS ENVIRONMENTAL IMPACTS

According to the USGCRP and others, GHGs already in the atmosphere will continue altering the climate system into the future, even with current or future emissions control efforts.⁵¹ Therefore, a NEPA review should consider an action in the context of the future state of the environment. In addition, climate change adaptation and resilience — defined as adjustments to natural or human systems in response to actual or expected climate changes — are important considerations for agencies contemplating and planning actions with effects that will occur both at the time of implementation and into the future.⁵²

1. Affected Environment

An agency should identify the affected environment to provide a basis for comparing the current and the future state of the environment as affected by the proposed action or its reasonable alternatives.⁵³ The current and projected future state of the environment without the proposed action (i.e., the no action alternative) represents the reasonably foreseeable affected environment, and this should be described based on

⁵¹ See Third National Climate Assessment, *Appendix 3 Climate Science Supplement 753-754*, available at http://s3.amazonaws.com/nca2014/low/NCA3_Full_Report_Appendix_3_Climate_Science_Supplement_LowRes.pdf?download=1.

⁵² See Third National Climate Assessment, Chapter 28, “Adaptation” and Chapter 26, “Decision Support: Connecting Science, Risk Perception, and Decisions,” available at <http://www.globalchange.gov/nca3-downloads-materials>; see also, Exec. Order No. 13653, 78 Fed. Reg. 66817 (Nov. 6, 2013) and Exec. Order No. 13693, *Planning for Federal Sustainability in the Next Decade*, 80 Fed. Reg. 15869 (March 25, 2015) (defining “climate-resilient design”).

⁵³ See 40 CFR 1502.15 (providing that environmental impact statements shall succinctly describe the environmental impacts on the area(s) to be affected or created by the alternatives under consideration).

authoritative climate change reports,⁵⁴ which often project at least two possible future scenarios.⁵⁵ The temporal bounds for the state of the environment are determined by the projected initiation of implementation and the expected life of the proposed action and its effects.⁵⁶ Agencies should remain aware of the evolving body of scientific information as more refined estimates of the impacts of climate change, both globally and at a localized level, become available.⁵⁷

2. Impacts

The analysis of climate change impacts should focus on those aspects of the human environment that are impacted by both the proposed action and climate change. Climate change can make a resource, ecosystem, human community, or structure more susceptible to many types of impacts and lessen its resilience to other environmental impacts apart from climate change. This increase in vulnerability can exacerbate the effects of the proposed action. For example, a proposed action may require water from a stream that has diminishing quantities of available water because of decreased snow pack in the mountains, or add heat to a water body that is already warming due to increasing atmospheric temperatures. Such considerations are squarely within the scope of NEPA and can inform decisions on whether to proceed with, and how to design, the proposed action to eliminate or mitigate impacts exacerbated by climate change. They can also

⁵⁴ See, e.g., Third National Climate Assessment (Regional impacts chapters) available at <http://www.globalchange.gov/nca3-downloads-materials>.

⁵⁵ See, e.g., Third National Climate Assessment (Regional impacts chapters, considering a low future global emissions scenario, and a high emissions scenario) available at <http://www.globalchange.gov/nca3-downloads-materials>.

⁵⁶ CEQ, *Considering Cumulative Effects Under the National Environmental Policy Act* (1997), https://ceq.doe.gov/publications/cumulative_effects.html. Agencies should also consider their work under Exec. Order No. 13653, *Preparing the United States for the Impacts of Climate Change*, 78 Fed. Reg. 66817 (Nov. 6, 2013), that considers how capital investments will be affected by a changing climate over time.

⁵⁷ See, e.g., <http://nca2014.globalchange.gov/report/regions/coasts>.

inform possible adaptation measures to address the impacts of climate change, ultimately enabling the selection of smarter, more resilient actions.

3. Available Assessments and Scenarios

In accordance with NEPA's rule of reason and standards for obtaining information regarding reasonably foreseeable effects on the human environment, agencies need not undertake new research or analysis of potential climate change impacts in the proposed action area, but may instead summarize and incorporate by reference the relevant scientific literature.⁵⁸ For example, agencies may summarize and incorporate by reference the relevant chapters of the most recent national climate assessments or reports from the USGCRP.⁵⁹ Particularly relevant to some proposed actions are the most current reports on climate change impacts on water resources, ecosystems, agriculture and forestry, health, coastlines, and ocean and arctic regions in the United States.⁶⁰ Agencies may recognize that scenarios or climate modeling information (including seasonal, inter-annual, long-term, and regional-scale projections) are widely used, but when relying on a single study or projection, agencies should consider their limitations and discuss them.⁶¹

4. Opportunities for Resilience and Adaptation

As called for under NEPA, the CEQ Regulations, and CEQ guidance, the NEPA review process should be integrated with agency planning at the earliest possible time that would allow for a meaningful analysis.⁶² Information developed during early

⁵⁸ See 40 CFR 1502.21 (material may be incorporated by reference if it is reasonably available for inspection by potentially interested persons during public review and comment).

⁵⁹ See <http://www.globalchange.gov/browse/reports>.

⁶⁰ See Third National Climate Assessment, *Our Changing Climate*, available at <http://nca2014.globalchange.gov/report>. Agencies should consider the latest final assessments and reports when they are updated.

⁶¹ See 40 CFR 1502.22. Agencies can consult www.data.gov/climate/portals for model data archives, visualization tools, and downscaling results.

⁶² See 42 U.S.C. 4332 ("agencies of the Federal Government shall ... utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making"); 40 CFR 1501.2 ("Agencies shall integrate the NEPA process with other planning at the earliest possible time..."); See also CEQ Memorandum

planning processes that precede a NEPA review may be incorporated into the NEPA review. Decades of NEPA practice have shown that integrating environmental considerations with the planning process provides useful information that program and project planners can consider in the design of the proposed action, alternatives, and potential mitigation measures. For instance, agencies should take into account increased risks associated with development in floodplains, avoiding such development wherever there is a practicable alternative, as required by Executive Order 11988 and Executive Order 13690.⁶³ In addition, agencies should take into account their ongoing efforts to incorporate environmental justice principles into their programs, policies, and activities, including the environmental justice strategies required by Executive Order 12898, as amended, and consider whether the effects of climate change in association with the effects of the proposed action may result in a disproportionate effect on minority and low income communities.⁶⁴ Agencies also may consider co-benefits of the proposed action, alternatives, and potential mitigation measures for human health, economic and social stability, ecosystem services, or other benefit that increases climate change preparedness or resilience. Individual agency adaptation plans and interagency adaptation strategies, such as agency Climate Adaptation Plans, the National Fish, Wildlife and Plants Climate Adaptation Strategy, and the National Action Plan: Priorities for Managing Freshwater

for Heads of Federal Departments and Agencies, *Improving the Process for Preparing Efficient and Timely Environmental Reviews under the National Environmental Policy Act*, 77 Fed. Reg. 14473 (Mar. 12, 2012), available at https://ceq.doe.gov/current_developments/docs/Improving_NEPA_Efficiencies_06Mar2012.pdf.

⁶³ See Exec. Order No. 11988, “Floodplain Management,” 42 Fed. Reg. 26951 (May 24, 1977), available at <http://www.archives.gov/federal-register/codification/executive-order/11988.html>; Exec. Order No. 13690, *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*, 80 Fed. Reg. 6425 (Jan. 30, 2015), available at <https://www.gpo.gov/fdsys/pkg/FR-2015-02-04/pdf/2015-02379.pdf>.

⁶⁴ See Exec. Order No. 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, 59 Fed. Reg. 7629 (Feb. 16, 1994), available at <https://ceq.doe.gov/nepa/regs/eos/ii-5.pdf>; CEQ, *Environmental Justice Guidance Under the National Environmental Policy Act* (Dec. 1997), available at <http://ceq.doe.gov/nepa/regs/ej/justice.pdf>.

Resources in a Changing Climate, provide other good examples of the type of relevant and useful information that can be considered.⁶⁵

Climate change effects on the environment and on the proposed project should be considered in the analysis of a project considered vulnerable to the effects of climate change such as increasing sea level, drought, high intensity precipitation events, increased fire risk, or ecological change. In such cases, a NEPA review will provide relevant information that agencies can use to consider in the initial project design, as well as alternatives with preferable overall environmental outcomes and improved resilience to climate impacts. For example, an agency considering a proposed long-term development of transportation infrastructure on a coastal barrier island should take into account climate change effects on the environment and, as applicable, consequences of rebuilding where sea level rise and more intense storms will shorten the projected life of the project and change its effects on the environment.⁶⁶ Given the length of time involved in present sea level projections, such considerations typically will not be relevant to short-term actions with short-term effects.

In addition, the particular impacts of climate change on vulnerable communities may be considered in the design of the action or the selection among alternatives to

⁶⁵ See <http://sustainability.performance.gov> for agency sustainability plans, which contain agency adaptation plans. See also <http://www.wildlifeadaptationstrategy.gov>; http://www.whitehouse.gov/sites/default/files/microsites/ceq/2011_national_action_plan.pdf; and <https://www.epa.gov/greeningepa/climate-change-adaptation-plans>

⁶⁶ See U.S. Department of Transportation, Gulf Coast Study, Phase 2, *Assessing Transportation Vulnerability to Climate Change Synthesis of Lessons Learned and Methods Applied*, FHWA-HEP-15-007 (Oct. 2014) (focusing on the Mobile, Alabama region), available at http://www.fhwa.dot.gov/environment/climate_change/adaptation/ongoing_and_current_research/gulf_coast_study/phase2_task6/fhwahp15007.pdf; U.S. Climate Change Science Program, Synthesis and Assessment Product 4.7, *Impacts of Climate Change and Variability on Transportation Systems and Infrastructure: Gulf Coast Study, Phase I* (Mar. 2008) (focusing on a regional scale in the central Gulf Coast), available at <https://downloads.globalchange.gov/sap/sap4-7/sap4-7-final-all.pdf>. Information about the Gulf Coast Study is available at http://www.fhwa.dot.gov/environment/climate_change/adaptation/ongoing_and_current_research/gulf_coast_study. See also Third National Climate Assessment, Chapter 28, “Adaptation,” at 675 (noting that Federal agencies in particular can facilitate climate adaptation by “ensuring the establishment of federal policies that allow for “flexible” adaptation efforts and take steps to avoid unintended consequences”), available at <http://nca2014.globalchange.gov/report/response-strategies/adaptation/intro-section-2>.

assess the impact, and potential for disproportionate impacts, on those communities.⁶⁷

For example, chemical facilities located near the coastline could have increased risk of spills or leakages due to sea level rise or increased storm surges, putting local communities and environmental resources at greater risk. Increased resilience could minimize such potential future effects. Finally, considering climate change preparedness and resilience can help ensure that agencies evaluate the potential for generating additional GHGs if a project has to be replaced, repaired, or modified, and minimize the risk of expending additional time and funds in the future.

C. Special Considerations for Biogenic Sources of Carbon

With regard to biogenic GHG emissions from land management actions – such as prescribed burning, timber stand improvements, fuel load reductions, scheduled harvesting, and livestock grazing – it is important to recognize that these land management actions involve GHG emissions and carbon sequestration that operate within the global carbon and nitrogen cycle, which may be affected by those actions. Similarly, some water management practices have GHG emission consequences (e.g., reservoir management practices can reduce methane releases, wetlands management practices can enhance carbon sequestration, and water conservation can improve energy efficiency).

Notably, it is possible that the net effect of ecosystem restoration actions resulting in short-term biogenic emissions may lead to long-term reductions of atmospheric GHG concentrations through increases in carbon stocks or reduced risks of future emissions. In the land and resource management context, how a proposed action affects a net carbon sink or source will depend on multiple factors such as the climatic region, the distribution

⁶⁷ For an example, see https://www.blm.gov/epl-front-office/projects/nepa/5251/42462/45213/NPR-A_FINAL_ROD_2-21-13.pdf.

of carbon across carbon pools in the project area, and the ongoing activities and trends.

In addressing biogenic GHG emissions, resource management agencies should include a comparison of estimated net GHG emissions and carbon stock changes that are projected to occur with and without implementation of proposed land or resource management actions.⁶⁸ This analysis should take into account the GHG emissions, carbon sequestration potential, and the changes in carbon stocks that are relevant to decision making in light of the proposed actions and timeframes under consideration.

One example of agencies dealing with biogenic emissions and carbon sequestration arises when agencies consider proposed vegetation management practices that affect the risk of wildfire, insect and disease outbreak, or other disturbance. The public and the decision maker may benefit from consideration of the influence of a vegetation management action that affects the risk of wildfire on net GHG emissions and carbon stock changes. NEPA reviews should consider whether to include a comparison of net GHG emissions and carbon stock changes that are anticipated to occur, with and without implementation of the proposed vegetation management practice, to provide information that is useful to the decision maker and the public to distinguish between alternatives. The analysis would take into account the estimated GHG emissions (biogenic and fossil), carbon sequestration potential, and the net change in carbon stocks relevant in light of the proposed actions and timeframes under consideration. In such cases the agency should describe the basis for estimates used to project the probability or likelihood of occurrence or changes in the effects or severity of wildfire. Where such

⁶⁸ One example of a tool for such calculations is the Carbon On Line Estimator (COLE), which uses data based on USDA Forest Service Forest Inventory & Analysis and Resource Planning Assessment data and other ecological data. COLE began as a collaboration between the National Council for Air and Stream Improvement, Inc. (NCASI) and USDA Forest Service, Northern Research Station. It currently is maintained by NCASI. It is available at <http://www.fs.usda.gov/ccrc/tools/cole>.

tools, methodologies, or data are not yet available, the agency should provide a qualitative analysis and its rationale for determining that the quantitative analysis is not warranted. As with any other analysis, the rule of reason and proportionality should be applied to determine the extent of the analysis.

CEQ acknowledges that Federal land and resource management agencies are developing agency-specific principles and guidance for considering biological carbon in management and planning decisions.⁶⁹ Such guidance is expected to address the importance of considering biogenic carbon fluxes and storage within the context of other management objectives and ecosystem service goals, and integrating carbon considerations as part of a balanced and comprehensive program of sustainable management, climate change mitigation, and climate change adaptation.

IV. TRADITIONAL NEPA TOOLS AND PRACTICES

A. Scoping and Framing the NEPA Review

To effectuate integrated decision making, avoid duplication, and focus the NEPA review, the CEQ Regulations provide for scoping.⁷⁰ In scoping, the agency determines the issues that the NEPA review will address and identifies the impacts related to the proposed action that the analyses will consider.⁷¹ An agency can use the scoping process to help it determine whether analysis is relevant and, if so, the extent of analysis

⁶⁹ See Council on Climate Change Preparedness and Resilience, *Priority Agenda Enhancing the Climate Resilience of America's Natural Resources*, at 52 (Oct. 2014), available at

http://www.whitehouse.gov/sites/default/files/docs/enhancing_climate_resilience_of_americas_natural_resources.pdf.

⁷⁰ See 40 CFR 1501.7 (“There shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. This process shall be termed scoping.”); see also CEQ Memorandum for Heads of Federal Departments and Agencies, *Improving the Process for Preparing Efficient and Timely Environmental Reviews under the National Environmental Policy Act*, March 6, 2012, available at

https://ceq.doe.gov/current_developments/docs/Improving_NEPA_Efficiencies_06Mar2012.pdf (the CEQ Regulations explicitly require scoping for preparing an EIS, however, agencies can also take advantage of scoping whenever preparing an EA).

⁷¹ See 40 CFR 1500.4(b), 1500.4(g), 1501.7.

appropriate for a proposed action.⁷² When scoping for the climate change issues associated with the proposed agency action, the nature, location, timeframe, and type of the proposed action and the extent of its effects will help determine the degree to which to consider climate projections, including whether climate change considerations warrant emphasis, detailed analysis, and disclosure.

Consistent with this guidance, agencies may develop their own agency-specific practices and guidance for framing the NEPA review. Grounded on the principles of proportionality and the rule of reason, such aids can help an agency determine the extent to which an analysis of GHG emissions and climate change impacts should be explored in the decision-making process and will assist in the analysis of the no action and proposed alternatives and mitigation.⁷³ The agency should explain such a framing process and its application to the proposed action to the decision makers and the public during the NEPA review and in the EA or EIS document.

B. Frame of Reference

When discussing GHG emissions, as for all environmental impacts, it can be helpful to provide the decision maker and the public with a recognizable frame of reference for comparing alternatives and mitigation measures. Agencies should discuss relevant approved federal, regional, state, tribal, or local plans, policies, or laws for GHG emission reductions or climate adaptation to make clear whether a proposed project's

⁷² See 40 CFR 1501.7 (The agency preparing the NEPA analysis must use the scoping process to, among other things, determine the scope and identify the significant issues to be analyzed in depth) and CEQ, *Memorandum for General Counsels, NEPA Liaisons, and Participants in Scoping*, April 30, 1981, available at <https://ceq.doe.gov/nepa/regs/scope/scoping.htm>.

⁷³ See, e.g., Matthew P. Thompson, Bruce G. Marcot, Frank R. Thompson, III, Steven McNulty, Larry A. Fisher, Michael C. Runge, David Cleaves, and Monica Tomosy, *The Science of Decisionmaking: Applications for Sustainable Forest and Grassland Management in the National Forest System* (2013), available at http://www.fs.fed.us/rm/pubs_other/rmrs_2013_thompson_m004.pdf; U.S. Forest Service Comparative Risk Assessment Framework And Tools, available at www.fs.fed.us/psw/topics/fire_science/craft/craft; and Julien Martin, Michael C. Runge, James D. Nichols, Bruce C. Lubow, and William L. Kendall, *Structured decision making as a conceptual framework to identify thresholds for conservation and management* (2009), *Ecological Applications* 19:1079–1090, available at <http://www.esajournals.org/doi/abs/10.1890/08-0255.1>.

GHG emissions are consistent with such plans or laws.⁷⁴ For example, the Bureau of Land Management has discussed how agency actions in California, especially joint projects with the State, may or may not facilitate California reaching its emission reduction goals under the State's Assembly Bill 32 (Global Warming Solutions Act).⁷⁵ This approach helps frame the policy context for the agency decision based on its NEPA review.

C. Incorporation by Reference

Incorporation by reference is of great value in considering GHG emissions or where an agency is considering the implications of climate change for the proposed action and its environmental effects. Agencies should identify situations where prior studies or NEPA analyses are likely to cover emissions or adaptation issues, in whole or in part. When larger scale analyses have considered climate change impacts and GHG emissions, calculating GHG emissions and carbon stocks for a specific action may provide only limited information beyond the information already collected and considered in the larger scale analyses. The NEPA reviews for a specific action can incorporate by reference earlier programmatic studies or information such as management plans, inventories, assessments, and research that consider potential changes in carbon stocks, as well as any relevant programmatic NEPA reviews.⁷⁶

Accordingly, agencies should use the scoping process to consider whether they should incorporate by reference GHG analyses from other programmatic studies, action

⁷⁴ See 40 CFR 1502.16(c), 1506.2(d) (where an inconsistency exists, agencies should describe the extent to which the agency will reconcile its proposed action with the plan or law). See also Exec. Order No. 13693, 80 Fed. Reg. 15869 (Mar. 25, 2015) (establishing GHG emission and related goals for agency facilities and operations. Scope 1, 2, and 3 emissions are typically separate and distinct from analyses and information used in an EA or EIS.).

⁷⁵ See, e.g., U.S. Bureau of Land Management, Desert Renewable Energy Conservation Plan Proposed Land Use Plan Amendment and Final Environmental Impact Statement, Vol. I, § I.3.3.2, at 12, available at <http://drecp.org/finaldrecp/>.

⁷⁶ See 40 CFR 1502.5, 1502.21.

specific NEPA reviews, or programmatic NEPA reviews to avoid duplication of effort. Furthermore, agencies should engage other agencies and stakeholders with expertise or an interest in related actions to participate in the scoping process to identify relevant GHG and adaptation analyses from other actions or programmatic NEPA documents.

D. Using Available Information

Agencies should make decisions using current scientific information and methodologies. CEQ does not expect agencies to fund and conduct original climate change research to support their NEPA analyses or for agencies to require project proponents to do so. Agencies should exercise their discretion to select and use the tools, methodologies, and scientific and research information that are of high quality and available to assess the impacts.⁷⁷

Agencies should be aware of the ongoing efforts to address the impacts of climate change on human health and vulnerable communities.⁷⁸ Certain groups, including children, the elderly, and the poor, are more vulnerable to climate-related health effects, and may face barriers to engaging on issues that disproportionately affect them. CEQ recommends that agencies periodically engage their environmental justice experts, and the Federal Interagency Working Group on Environmental Justice,⁷⁹ to identify approaches to avoid or minimize impacts that may have disproportionately high and

⁷⁷ See 40 CFR 1502.24 (requiring agencies to ensure the professional and scientific integrity of the discussions and analyses in environmental impact statements).

⁷⁸ USGCRP, *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment* (Apr. 2016), available at <https://health2016.globalchange.gov/downloads>.

⁷⁹ For more information on the Federal Interagency Working Group on Environmental Justice co-chaired by EPA and CEQ, see <http://www.epa.gov/environmentaljustice/interagency/index.html>.

adverse human health or environmental effects on minority and low-income populations.⁸⁰

E. Programmatic or Broad-Based Studies and NEPA Reviews

Agency decisions can address different geographic scales that can range from the programmatic or landscape level to the site- or project-specific level. Agencies sometimes conduct analyses or studies that are not NEPA reviews at the national level or other broad scale level (e.g., landscape, regional, or watershed) to assess the status of one or more resources or to determine trends in changing environmental conditions.⁸¹ In the context of long-range energy, transportation, and resource management strategies an agency may decide that it would be useful and efficient to provide an aggregate analysis of GHG emissions or climate change effects in a programmatic analysis and then incorporate by reference that analysis into future NEPA reviews.

A tiered, analytical decision-making approach using a programmatic NEPA review is used for many types of Federal actions⁸² and can be particularly relevant to addressing proposed land, aquatic, and other resource management plans. Under such an approach, an agency conducts a broad-scale programmatic NEPA analysis for decisions such as establishing or revising USDA Forest Service land management plans, Bureau of Land Management resource management plans, or Natural Resources Conservation Service conservation programs. Subsequent NEPA analyses for proposed site-specific

⁸⁰ *President's Memorandum for the Heads of All Departments and Agencies, Executive Order on Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (Feb. 11, 1994), available at <https://ceq.doe.gov/nepa/regs/eos/ii-5.pdf>; CEQ, *Environmental Justice Guidance Under the National Environmental Policy Act*, available at <https://ceq.doe.gov/nepa/regs/ej/justice.pdf>.

⁸¹ Such a programmatic study is distinct from a programmatic NEPA review which is appropriate when the action under consideration is itself subject to NEPA requirements. See CEQ, *Memorandum for Heads of Federal Departments and Agencies, Effective Use of Programmatic NEPA Reviews*, Dec. 18, 2014, § I(A), p. 9, available at https://www.whitehouse.gov/sites/default/files/docs/effective_use_of_programmatic_nepa_reviews_final_dec2014_searchable.pdf (discussing non-NEPA types of programmatic analyses such as data collection, assessments, and research, which previous NEPA guidance described as joint inventories or planning studies).

⁸² See 40 CFR 1502.20, 1508.28. A programmatic NEPA review may be appropriate when a decision is being made that is subject to NEPA, such as establishing formal plans, programs, and policies, and when considering a suite of similar projects.

decisions – such as proposed actions that implement land, aquatic, and other resource management plans – may be tiered from the broader programmatic analysis, drawing upon its basic framework analysis to avoid repeating analytical efforts for each tiered decision. Examples of project- or site-specific actions that may benefit from being able to tier to a programmatic NEPA review include: constructing transmission lines; conducting prescribed burns; approving grazing leases; granting rights-of-way; issuing leases for oil and gas drilling; authorizing construction of wind, solar or geothermal projects; and approving hard rock mineral extraction.

A programmatic NEPA review may also serve as an efficient mechanism in which to assess Federal agency efforts to adopt broad-scale sustainable practices for energy efficiency, GHG emissions avoidance and emissions reduction measures, petroleum product use reduction, and renewable energy use, as well as other sustainability practices.⁸³ While broad department- or agency-wide goals may be of a far larger scale than a particular program, policy, or proposed action, an analysis that informs how a particular action affects that broader goal can be of value.

F. Monetizing Costs and Benefits

NEPA does not require monetizing costs and benefits. Furthermore, the weighing of the merits and drawbacks of the various alternatives need not be displayed using a monetary cost-benefit analysis and should not be when there are important qualitative considerations.⁸⁴ When an agency determines that a monetized assessment of the impacts of greenhouse gas emissions or a monetary cost-benefit analysis is appropriate and

⁸³ See Exec. Order No. 13693, 80 Fed. Reg. 15869 (Mar. 25, 2015).

⁸⁴ See 40 CFR 1502.23.

relevant to the choice among different alternatives being considered, such analysis may be incorporated by reference⁸⁵ or appended to the NEPA document as an aid in evaluating the environmental consequences.⁸⁶ For example, a rulemaking could have useful information for the NEPA review in an associated regulatory impact analysis which could be incorporated by reference.⁸⁷ When using a monetary cost-benefit analysis, just as with tools to quantify emissions, the agency should disclose the assumptions, alternative inputs, and levels of uncertainty associated with such analysis. Finally, if an agency chooses to monetize some but not all impacts of an action, the agency providing this additional information should explain its rationale for doing so.⁸⁸

V. CONCLUSION AND EFFECTIVE DATE

Agencies should apply this guidance to all new proposed agency actions when a NEPA review is initiated. Agencies should exercise judgment when considering whether to apply this guidance to the extent practicable to an on-going NEPA process. CEQ does not expect agencies to apply this guidance to concluded NEPA reviews and actions for

⁸⁵ See 40 CFR 1502.21 (material may be cited if it is reasonably available for inspection by potentially interested persons within the time allowed for public review and comment).

⁸⁶ When conducting a cost-benefit analysis, determining an appropriate method for preparing a cost-benefit analysis is a decision left to the agency's discretion, taking into account established practices for cost-benefit analysis with strong theoretical underpinnings (for example, see OMB Circular A-4 and references therein). For example, the Federal social cost of carbon (SCC) estimates the marginal damages associated with an increase in carbon dioxide emissions in a given year. Developed through an interagency process committed to ensuring that the SCC estimates reflect the best available science and methodologies and used to assess the social benefits of reducing carbon dioxide emissions across alternatives in rulemakings, it provides a harmonized, interagency metric that can give decision makers and the public useful information for their NEPA review. For current Federal estimates, see Interagency Working Group on Social Cost of Carbon, United States Government, *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866* (revised July 2015), available at <https://www.whitehouse.gov/omb/oira/social-cost-of-carbon>.

⁸⁷ For example, the regulatory impact analysis was used as a source of information and aligned with the NEPA review for Corporate Average Fuel Economy (CAFE) standards, see National Highway Traffic Safety Administration, Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2017-2025, Final Environmental Impact Statement, Docket No. NHTSA-2011-0056 (July 2012), § 5.3.2, available at <http://www.nhtsa.gov/Laws+&+Regulations/CAFE+-+Fuel+Economy/Environmental+Impact+Statement+for+CAFE+Standards,+2017-2025>.

⁸⁸ For example, the information may be responsive to public comments or useful to the decision maker in further distinguishing between alternatives and mitigation measures. In all cases, the agency should ensure that its consideration of the information and other factors relevant to its decision is consistent with applicable statutory or other authorities, including requirements for the use of cost-benefit analysis.

which a final EIS or EA has been issued. Agencies should consider applying this guidance to projects in the EIS or EA preparation stage if this would inform the consideration of differences between alternatives or address comments raised through the public comment process with sufficient scientific basis that suggest the environmental analysis would be incomplete without application of the guidance, and the additional time and resources needed would be proportionate to the value of the information included.

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ATTACHMENT 2



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH



KEN ALEX
DIRECTOR

March 24, 2015

Thank you for the opportunity to review and provide comments on the White House Council on Environmental Quality's "Revised Draft Guidance on Greenhouse Gases and Climate Change," hereafter referred to as the "Guidance." The Guidance provides suggestions and information to public agencies addressing climate change in environmental documents prepared pursuant to the National Environmental Policy Act, or NEPA. Like NEPA, California's Environmental Quality Act, commonly referred to as CEQA, also requires public agencies to study the potential environmental consequences of proposed projects. Over the past decade, California public agencies have developed rich experience and expertise analyzing climate change in environmental documents pursuant to CEQA. Approximately five years ago, this office developed regulations that explicitly require analysis of greenhouse gas emissions in CEQA documents. Since then, robust analytical tools have been made available that significantly reduce the time and effort needed to analyze climate change impacts of projects. Our understanding of the feasibility and effectiveness of a wide variety of mitigation measures has also dramatically increased.

Initially, we strongly agree that NEPA plainly requires covered agencies to consider the effects, including cumulative effects, of their proposed projects if they may be significant, and that the effects of climate change upon those projects must also be taken into account. NEPA's broad analytic scope, with which federal agencies must comply "to the fullest extent possible," clearly encompasses these climate change-related issues, as the federal courts have repeatedly held.¹ We commend the Council for its efforts to further improve the quality and consistency of NEPA analysis in this area.

The Guidance makes important strides in improving nationwide practice in analyzing climate change impacts of proposed projects. The following comments provide California's perspective on these issues, which is informed by our own experience integrating climate change into CEQA analyses. They are intended to strengthen the Guidance for eventual use on a nation-wide scale.

The Guidance Provides Needed Advice on Addressing Climate Change

The Guidance appropriately recommends that agencies analyze not only the project's contribution of greenhouse gas emissions, but also the project's potential to exacerbate effects caused by climate change. California's Natural Resources Agency provides similar direction in regulations requiring the analysis of climate change in documents prepared pursuant to CEQA.

¹ See, e.g. 42 U.S.C. § 4332; *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172 (2008).

Section 15126.2 of the CEQA Guidelines² states, in part, that an "EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas." In its Final Statement of Reasons, which describes the purpose of the regulations, the Natural Resources Agency explained: "that section contemplates hazards which the presence of a project could exacerbate (i.e., potential upset of hazardous materials in a flood, increased need for firefighting services, etc.)." (Final Statement of Reasons,³ at page 43.)

As noted in detail at page 15 of the Guidance, tools are already available to do this type of analysis. For example, California worked together with stakeholders to develop tools and resources that could support such analysis. The "Cal-Adapt" website, for example, illustrates impacts of climate change across California using best available science.⁴ The Climate Resilience Toolkit⁵ was largely modeled after Cal-Adapt and has been referred to as the "Cal-Adapt for the nation". These resources have been helpful in analyzing climate change impacts in California. Similarly, the Climate Resilience Toolkit could perform this role at the national level. The Climate Resilience Toolkit also has a decision support component, which was inspired by California's Adaptation Planning Guide. As with the Adaptation Planning Guide, a narrative could be added to the Climate Resilience Toolkit which highlights its appropriate use under NEPA.

The Guidance Can Be Improved in Several Respects

While the Guidance offers much important information and advice, it can be improved. The following offers several specific suggestions for improvement.

The Suggested "Reference Point" May Confuse Public Agencies, and So CEQ Should Delete It From the Guidance.

The Guidance discourages public agencies from providing a quantitative analysis of greenhouse gas emissions if project emissions fall below a "reference point" of 25,000 metric tons CO₂e per year, unless quantification "is easily accomplished." (Guidance, at page 18.) This directive in the Guidance may create more problems than it solves. First, as the Guidance correctly indicates, emissions can be easily quantified for most projects, and consistent with NEPA's information disclosure purposes, agencies should make a good faith effort to analyze and disclose such emissions. Second, quantification of emissions serves an important purpose of

² The regulations implementing CEQA are known as the CEQA Guidelines. They are contained in sections 15000 and following in Title 14 of the California Code of Regulations.

³ The Final Statement of Reasons is available online at http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf

⁴ The Cal-Adapt website is available online at www.cal-adapt.org

⁵ Available online at www.climate.gov/toolkit

demonstrating where emissions reductions may be easily achieved. Third, application of the reference point might prevent the disclosure of information needed to conduct an adequate cumulative impacts analysis. Finally, the suggested reference is much larger than the quantity of emissions that might be considered to be significant in California. To remedy these concerns, we recommend that the discussion of the “reference point” be removed from the Guidance. These points are discussed in greater detail below.

Emissions from many projects are easily quantified using existing tools.

The Guidance correctly advises that “GHG estimation tools have become widely available, and are already in broad use...” (Guidance, at page 15.) This is certainly true in California. The California Air Pollution Control Officers Association (CAPCOA), for example, has pioneered several important guides, including “CEQA & Climate Change,”⁶ which includes options for quantifying and evaluating the significance of greenhouse gas emissions, “Model Policies for Greenhouse Gas Emissions in General Plans,”⁷ and “Quantifying Greenhouse Gas Mitigation Measures.”⁸ National protocols for calculating greenhouse gas emissions are also readily available, such as the United States Community Protocol for Calculating Greenhouse Gas Emissions⁹ and the Local Government Operations Protocol.¹⁰ Numerous national and international groups and governments participated in the development of these two protocols. California also helped fund the development of the Clearpath suite of software tools to address greenhouse gas emissions through the State Energy Efficiency Collaborative.¹¹ These tools are in use statewide but were also used as the basis for a national scale resource called Clearpath.¹² The California Air Resources Board has published an extensive list of quantification tools on its “Cool California” website¹³ which could be used in a NEPA analysis. Lastly, for project level emissions there are numerous tools available, though the California Emissions Estimator Model, commonly known as CalEEMod,¹⁴ is widely used throughout California to quantify emissions. In part because of the ready availability of estimation tools, California generally requires lead agencies to quantify emissions as part of their CEQA analysis. (CEQA Guidelines § 15064.4 (“A

⁶ <http://www.capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-White-Paper.pdf>

⁷ <http://www.capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-ModelPolicies-6-12-09-915am.pdf>

⁸ <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.

⁹ <http://www.icleiusa.org/tools/ghg-protocol/community-protocol>

¹⁰ <http://www.arb.ca.gov/cc/protocols/localgov/localgov.htm>

¹¹ <http://californiaseec.org/software-tools>

¹² <http://www.icleiusa.org/tools/clearpath>

¹³ www.coolcalifornia.org

¹⁴ www.caleemod.com. CalEEMod was developed and is maintained by CAPCOA to support the needs of all air districts in the state.

lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project").) In adopting this rule, the California Natural Resources Agency found that:

quantification of GHG emissions is possible for a wide range of projects using currently available tools. Modeling capabilities have improved to allow quantification of emissions from various sources and at various geographic scales. (Office of Planning and Research, CEQA and Climate Change: Addressing Climate Change Through the California Environmental Quality Act Review, Attachment 2: Technical Resources/Modeling Tools to Estimate GHG Emissions (June 2008); CAPCOA White Paper, at pp. 59-78.) Moreover, one of the models that can be used in a GHG analysis, URBEMIS, is already widely used in CEQA air quality analyses. (CAPCOA White Paper, at p. 59.)"

(Final Statement of Reasons, at page 21.) In the five years since California adopted its regulations, tools have been improved and their use has become widespread.

Not Only Are Most Project Emissions Easily Quantified, but Doing So Provides Agencies and the Public with Valuable Information Regarding Ways to Reduce Project Emissions.

CEQA generally requires quantification of greenhouse gas emissions not only because it is usually relatively easy to do so, but also because quantification reveals ways to feasibly reduce those emissions. Again, in adopting its regulations, the California Natural Resources Agency found that:

[Q]uantification indicates to the lead agency, and the public, whether emissions reductions are possible, and if so, from which sources. Thus, [for example,] if quantification reveals that a substantial portion of a project's emissions result from energy use, a lead agency may consider whether design changes could reduce the project's energy demand.

(Final Statement of Reasons, at page 21.) For similar reasons, project emissions should usually be quantified in NEPA analyses. In fact, such quantification is key to satisfying NEPA's public disclosure policies, and to understanding what level of mitigation is required. . (See, e.g., 40 CFR 1500.1(c) ("The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment"); 1500.2 (d)-(e) ("Federal agencies shall to the fullest extent possible: ... [e]ncourage and facilitate public involvement in decisions which affect the quality of the human environment [and] [u]se the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment"); see also 40 CFR 1502.16 (requiring environmental impact statements to discuss "[m]eans to mitigate adverse environmental impacts....").)

The Guidance's Focus on the Relative Quantity of Project Emissions May Obscure Consideration of Cumulative Impacts.

The Guidance correctly notes that climate change impacts "are exacerbated by a series of smaller decisions[.]" (Guidance, at page 9.) The Guidance's discussion of "proportionality" and the 25,000 metric ton "reference point," however, suggests that smaller quantities of emissions are not relevant to a NEPA analysis.

NEPA, however, requires analysis of cumulative impacts.¹⁵ Particularly relevant in the context of climate change, the CEQ regulations state "the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality." (40 CFR 1508.27 (emphasis added).) Further, when considering the significance of an effect, an agency should consider "[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment." (*Id.* (emphasis added).)

Agencies might read the Guidance's discussion of a "reference point" to mean that emissions below that point need not be considered, or even disclosed. As a result, neither the agency nor the public would be able to consider the effect of the proposed project in light of the severity of the climate change problem, or other related sources of emissions. Such potential cumulative effects are exactly what NEPA requires agencies to consider.

Finally, the Guidance includes a confusing sentence on page 11 that states: "CEQ does not expect that an EIS would be required based on cumulative impacts of GHG emissions alone." This is misleading, since climate change is an inherently cumulative impact, and it is extremely unlikely that the direct emissions from any single project would have a demonstrable effect on the global climate. Therefore, this sentence should be removed from the Guidance.

California Agencies Have Found Incremental Contributions of Greenhouse Gas Emissions Considerably Lower than 25,000 CO₂e to be Potentially Significant.

Like NEPA, CEQA leaves the ultimate conclusion regarding the significance of a project's impacts to the lead agency, considering the context of the project and its circumstances. Nevertheless, some California agencies have developed "thresholds of significance" that identify levels of greenhouse gas emissions that might *normally* be considered significant. The Bay Area Air Quality Management District, for example, developed "thresholds of significance" indicating that emissions of 10,000 metric tons per year are considered cumulatively significant for certain industrial projects, and that emissions as low as 1,100 tons for certain land use projects may be significant. (BAAQMD, "California Environmental Quality Act Air Quality Guidelines," Revised May 2011, at page 2-4.)¹⁶ Other California cities, counties, and air

¹⁵ Cumulative impacts are also a key consideration under CEQA. A California court, in one of the seminal cases addressing cumulative impacts under CEQA, observed:

"One of the most important environmental lessons evident from past experience is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant, assuming threatening dimensions only when considered in light of the other sources with which they interact. Perhaps the best example is air pollution, where thousands of relatively small sources of pollution cause a serious environmental health problem.

"CEQA has responded to this problem of incremental environmental degradation by requiring analysis of cumulative impacts."

(*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692, 720.)

¹⁶

<http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines%20May%202011.ashx?la=en>

districts have reviewed projects using similar bright-line significance thresholds, typically in the 10,000 metric ton per year range. Thus, even as a reference point, 25,000 tons is a very large quantity of emissions.

To Avoid the Problems Described Above, the Guidance Should Encourage Public Agencies to Calculate and Disclose Project Emissions and Delete the Discussion of the 25,000 Ton “Reference Point”.

For the reasons described above, instead of *discouraging* disclosure of emissions below a reference point, CEQ should consider revising the Guidance to require a good-faith effort, where possible, to disclose a project’s greenhouse gas emissions. Specifically, CEQ should delete the discussion of the 25,000 ton reference point. Doing so will not pose an undue burden on agencies, as the Guidance already advises that quantification should be done when methods to do so are readily available, and indicates that many quantification tools are already in broad use.

The Guidance Should Include Information Describing the Magnitude of Emissions Reductions That Will Be Needed to Avoid the Worst Effects of Climate Change.

The Guidance correctly advises that that projected climate change will adversely affect public health and welfare. (Guidance, at page 7.) While the Guidance also notes that agencies should consider their projects’ incremental additions of greenhouse gas emissions, the Guidance does not indicate when such incremental additions might be significant. To help agencies make that determination, CEQ should consider providing additional information regarding the magnitude of emissions reductions that will be needed to avoid the worst effects of climate change. In particular, the recent U.S. National Climate Assessment reports that greenhouse gas concentrations in the atmosphere are already far above historic levels, and are associated with dangerous changes to the climate now occurring. The Report also emphasizes that an emission reduction trajectory consistent with or below the “B1” trajectory projected by the Intergovernmental Panel on Climate Change would “reduce the risk of some of the worst impacts of climate change,” though it would not fully mitigate them without further reductions.¹⁷ Agencies should be aware of these reduction levels as they consider their NEPA analyses.

Similarly, California’s Scoping Plan, which maps out the state’s effort to reduce greenhouse gas emissions, also provides relevant information. For example, it reports:

To prevent exceeding 450 ppm CO₂e, developed countries must substantially reduce their emissions in the near term. The 2008 World Energy Outlook suggests that Organisation for Economic Co-operation and Development (OECD) countries must reduce emissions by about 40 percent below 2006 levels by 2030.¹⁸ The Union of Concerned Scientists has suggested a 2030 emissions target for the United States of 56 percent below 2005 levels (44 percent below 1990 levels).¹⁹ A governmental study from the Netherlands finds that Europe would have to reduce emissions by 47 percent below 1990 levels and the United States would have to reduce emissions by 37 percent below 1990 levels by 2030. The International Energy Agency comes to a similar conclusion, finding that the United States would have to reduce emissions by about 38

¹⁷ See U.S. Global Change Research Program, *Climate Change Impacts in the United States: U.S. National Climate Assessment* (2014) at 13-14.

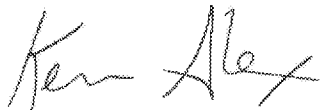
percent below 1990 levels by 2030.²¹ Note that percent reductions by 2030 depend on the assumed overall trajectory of emissions, including the amount after 2030.

(Scoping Plan Update, at page 13.) In sum, the research indicates that steep reductions in emissions are needed in the near future. Providing such information in the Guidance would assist lead agencies in determining whether a particular increment of emissions should be treated as significant in a NEPA analysis.

Conclusion

The Guidance provides useful information that should assist lead agencies in analyzing climate change in documents prepared pursuant to NEPA. It can be improved, however, as suggested above. Please do not hesitate to contact us if we can be of any assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Ken Alex". The signature is fluid and cursive, with the first name "Ken" and last name "Alex" clearly distinguishable.

Ken Alex

Director, Governor's Office of Planning and Research

Senior Advisor, Office of California Governor Edmund G. Brown, Jr.

EXHIBIT 3

**APPENDIX TO COMMENTS OF ATTORNEYS GENERAL OF WASHINGTON AND
CALIFORNIA, ET AL.**

March 9, 2020

VIA OVERNIGHT MAIL

Edward A. Boling
Associate Director for the National Environmental Policy Act
Viktoria Z. Seale
Chief of Staff and General Counsel
Council on Environmental Quality
730 Jackson Place NW
Washington, DC 20503

Re: Notice of Proposed Rulemaking – Update to the Regulations Implementing the
Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1684
(Jan. 10, 2020)
Docket ID No. CEQ-2019-0003

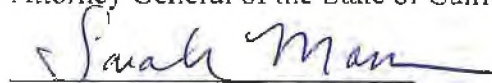
Dear Associate Director Boling:

Please find enclosed an appendix to comments on the Council on Environmental Quality's
notice of proposed rulemaking regarding proposed revisions to the regulations implementing the
National Environmental Policy Act, submitted on behalf of the Attorneys General of Washington
and California, et al. The comments will be submitted separately.

Sincerely,

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APPENDIX TO COMMENTS OF ATTORNEYS GENERAL OF WASHINGTON AND CALIFORNIA, ET AL.

Council on Environmental Quality's Notice of Proposed Rulemaking – Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act 85 Fed. Reg. 1684 (Jan. 10, 2020) Docket ID: CEQ-2019-0003

Tab	Document Title	Document Source
1	Envtl. Law Inst., NEPA Success Stories: Celebrating 40 Years of Transparency and Open Government (Aug. 2010)	https://ceq.doe.gov/docs/get-involved/NEPA_Success_Stories.pdf
2	CEQ, Examples of Benefits from the NEPA Process for ARRA [American Recovery and Reinvestment Act] Funded Activities (May 2011)	https://ceq.doe.gov/docs/get-involved/ARRA_NEPA_Benefits_List_May122100.pdf
3	CEQ, A Citizen's Guide to the NEPA: Having Your Voice Heard (Dec. 2007)	https://ceq.doe.gov/docs/get-involved/Citizens_Guide_Dec07.pdf
4	U.S. Gov't Accountability Office, GAO-14-369, National Environmental Policy Act: Little Information Exists on NEPA Analyses (2014)	https://www.gao.gov/products/gao-14-369
5	Natural Resources Defense Council, Never Eliminate Public Advice: NEPA Success Stories (Feb. 1, 2015)	https://www.nrdc.org/resources/never-eliminate-public-advice-nepa-success-stories
6	Richard Lazarus, The National Environmental Policy Act in the U.S. Supreme Court: A Reappraisal and a Peek Behind the Curtains, 100 Georgetown L.J. 1507 (2012)	http://www.law.harvard.edu/faculty/rlazarus/docs/articles/Lazarus_APeekBehindtheCurtain_2012.pdf
7	CEQ, National Environmental Policy Act: A Study of Its Effectiveness After Twenty-five Years (Jan. 1997)	https://ceq.doe.gov/docs/ceq-publications/nepa25fn.pdf
8	CEQ, Environmental Impact Statement Timelines (2010-2017) (Dec. 14, 2018)	https://www.whitehouse.gov/wp-content/uploads/2017/11/CEQ-EIS-Timelines-Report.pdf
9	CEQ, Memorandum for Heads of Federal Departments and Agencies on Improving the Process for Preparing Efficient and Timely Environmental Reviews under NEPA (Mar. 6, 2012)	https://ceq.doe.gov/docs/ceq-regulations-and-guidance/Improving_NEPA_Efficiencies_06Mar2012.pdf
10	CEQ, Memorandum for Heads of Federal Departments and Agencies, Guidance to Federal Agencies Regarding the Environmental Review and Authorization Process for Infrastructure Projects (Jan. 13, 2017)	https://www.permits.performance.gov/sites/permits.performance.gov/files/docs/Official%20Signed%20FAST-41%20Guidance%20M-17-14%202017-01-13.pdf
11	Richard F. Weingroff, Addressing the Quiet Crisis: Origins of the National Environmental Policy Act of 1969	https://www.fhwa.dot.gov/highwayhistory/nepa/nepa.pdf
12	Sam Kalen, Ecology Comes of Age: NEPA's Lost Mandate, 21 Duke Environmental Law & Policy Forum 113 (2010)	https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1040&context=delpf
13	Office of Mgmt. and Budget, Circular A-4 (Sept. 17, 2003)	https://obamawhitehouse.archives.gov/omb/circulars_a004_a-4

**APPENDIX TO COMMENTS OF ATTORNEYS GENERAL OF WASHINGTON AND
CALIFORNIA, ET AL.**

**Council on Environmental Quality's Notice of Proposed Rulemaking – Update to the Regulations
Implementing the Procedural Provisions of the National Environmental Policy Act
85 Fed. Reg. 1684 (Jan. 10, 2020) Docket ID: CEQ-2019-0003**

Tab	Document Title	Document Source
14	CEQ, Memorandum to the Heads of Agencies on the Application of NEPA to Proposed Federal Actions in the United States with Transboundary Effects (July 1, 1997)	https://ceq.doe.gov/docs/ceq-regulations-and-guidance/memorandum-transboundary-impacts-070197.pdf
15	CEQ, Memorandum for Heads of Federal Departments and Agencies: Establishing, Applying, and Revising Categorical Exclusions under the National Environmental Policy Act	https://ceq.doe.gov/docs/ceq-regulations-and-guidance/NEPA_CE_Guidance_Nov232010.pdf
16	CEQ, Report Regarding the Mineral Management Service's NEPA Policies, Practices, and Procedures as They Relate to Outer Continental Shelf Oil and Gas Exploration (Aug. 16, 2010)	https://www.doi.gov/sites/doi.gov/files/migrated/news/pressreleases/upload/CEQ-Report-Reviewing-MMS-OCS-NEPA-Implementation.pdf
17	Report of Federal Interagency Working Group on Environmental Justice & NEPA Committee: Promising Practices for EJ Methodologies in NEPA Reviews (March 2016)	https://www.epa.gov/environmentaljustice/ej-iwg-promising-practices-ej-methodologies-nepa-reviews
18	Council on Environmental Quality, Memorandum to Agencies: 40 Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations 1986)	https://www.energy.gov/sites/prod/files/2018/06/f53/G-CEQ-40Questions.pdf
19	CEQ, Considering Cumulative Effects under the National Environmental Policy Act (Jan. 1997)	https://ceq.doe.gov/publications/cumulative_effects.html
20	Federal Highway Administration, NEPA and Transportation Decisionmaking: Questions and Answers Regarding Consideration of Indirect and Cumulative Impacts in the NEPA Process	https://www.environment.fhwa.dot.gov/nepa/QAimpact.aspx
21	U.S. EPA, Consideration of Cumulative Impacts in EPA Review of NEPA Documents (May 1999)	https://www.epa.gov/sites/production/files/2014-08/documents/cumulative.pdf
22	Mark F. Grady, Proximate Cause Decoded, 50 UCLA L. Rev. 293 (2002)	https://www.uclalawreview.org/wp-content/uploads/2019/09/26_50UCLALRev2932002-2003.pdf
23	Nicole Summers, Setting the Standard for Proximate Cause in the Wake of Bank of America Corp. v. City of Miami, 97 N.C. L. Rev. 529 (2019)	https://scholarship.law.unc.edu/cgi/viewcontent.cgi?article=6714&context=nclr
24	California Office of Env'tl. Health Hazard Assessment, Indicators of Climate Change in California: Environmental Justice Impacts (Dec. 2010)	https://oehha.ca.gov/media/downloads/climate-change/document/climatechangeej123110.pdf

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Tab	Document Title	Document Source
25	CEQ, Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews (Aug. 1, 2016)	https://ceq.doe.gov/docs/ceq-regulations-and-guidance/nepa_final_ghg_guidance.pdf
26	CEQ Environmental Justice Guidance (Dec: 10, 1997)	https://www.epa.gov/sites/production/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf
27	Mercedes A. Bravo et al., Racial isolation and exposure to airborne particulate matter and ozone in understudied US populations: Environmental justice applications of downscaled numerical model output, 92-93 Env't Int'l 247 (2016)	https://www.ncbi.nlm.nih.gov/pubmed/27115915
28	Interdisciplinary Environmental Clinic at Washington University School of Law, Environmental Racism in St. Louis	https://assets.documentcloud.org/documents/6367937/2097-STL-EnvirRacism-Report-04-Web.pdf
29	US EPA, Environmental Justice	https://www.epa.gov/environmentaljustice
30	EPA, Supplemental Notice of Proposed Rulemaking, Strengthening Transparency in Regulatory Science	https://www.epa.gov/osa/strengthening-transparency-regulatory-science
31	FCC, 2019 Broadband Deployment Report (May 29, 2019)	https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf FCC
32	CEQ and Advisory Council on Historic Preservation, NEPA and NHPA: A Handbook for Integrating NEPA and Section 106 (Mar. 2013)	https://ceq.doe.gov/docs/ceq-publications/NEPA_NHPA_Section_106_Handbook_Mar2013.pdf
33	CEQ, Emergencies and the National Environmental Policy Act	https://ceq.doe.gov/docs/ceq-regulations-and-guidance/Emergencies_and_NEPA.pdf
34	David E. Adelman & Robert L. Glicksman, Presidential and Judicial Politics in Environmental Litigation, 50 Ariz. St. L.J. 4 (2018).	http://arizonastatelawjournal.org/wp-content/uploads/2018/05/Adelman_Pub.pdf
35	CEQ, States and Local Jurisdictions with NEPA-like Environmental Planning Requirements	https://ceq.doe.gov/laws-regulations/states.html
36	OEHHA, Tracking and Evaluation of Benefits and Impacts of Greenhouse Gas Limits in Disadvantaged Communities: Initial Report (2017)	https://oehha.ca.gov/media/downloads/environmental-justice/report/oehhaab32report020217.pdf
37	OEHHA, Indicators of Climate Change in California (2018)	https://oehha.ca.gov/media/downloads/climate-change/report/2018caindicatorsreportmay2018.pdf

**APPENDIX TO COMMENTS OF ATTORNEYS GENERAL OF WASHINGTON AND
CALIFORNIA, ET AL.**

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Implementing the Procedural Provisions of the National Environmental Policy Act
85 Fed. Reg. 1684 (Jan. 10, 2020) Docket ID: CEQ-2019-0003**

Tab	Document Title	Document Source
38	EPA, Memorandum to Regional Administrators and Assistant Administrators, Addressing Environmental Justice through Reviews Conducted Pursuant to the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act (Apr. 19, 2011)	https://www.epa.gov/sites/production/files/2014-08/documents/nepa-environmental-justice-memo-pg.pdf
39	EPA, Memorandum to Regional NEPA Directors and Regional 309 Environmental Review Coordinators, Promoting the Use of Health Impact Assessment to Address Human Health in Reviews Conducted Pursuant to the National Environmental Policy Act and Section 309 of the Clean Air Act (Nov. 10, 2015)	https://www.epa.gov/sites/production/files/2014-08/documents/nepa-environmental-justice-memo-pg.pdf
40	EPA, Memorandum to EPA Environmental Review Coordinators 1-10, Roger Janson, Region 1, Elizabeth Borowiec, Region 9, Interim OFA Program Guidance on Implementing the EPA Policy on Evaluating Health Risks to Children (Apr. 4, 1996)	https://www.epa.gov/sites/production/files/2014-08/documents/children-health-risks-pg.pdf
41	EPA, Memorandum to Regional 309 Environmental Review and Regional Children's Environmental Health Coordinators, Addressing Children's Health through Reviews Conducted Pursuant to the National Environmental Policy Act and Section 309 of the Clean Air Act (Aug. 14, 2012)	https://www.epa.gov/sites/production/files/2014-08/documents/nepa-childrens-health-memo-august-2012.pdf
42	DOE, NEPA and CEQA: Integrating State and Federal Environmental Reviews (Final) (2014)	https://www.energy.gov/nepa/downloads/nepa-and-ceqa-integrating-state-and-federal-environmental-reviews-final

COMMENTS OF ATTORNEYS GENERAL OF WASHINGTON, CALIFORNIA, NEW YORK, COLORADO, DISTRICT OF COLUMBIA, CONNECTICUT, DELAWARE, GUAM, HARRIS COUNTY, ILLINOIS, MAINE, MARYLAND, MASSACHUSETTS, MINNESOTA, NEVADA, NEW JERSEY, NEW MEXICO, CITY OF NEW YORK, NORTH CAROLINA, OREGON, PENNSYLVANIA, RHODE ISLAND, VERMONT, WISCONSIN, AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

July 29, 2021

VIA REGULATIONS.GOV

Amy B. Coyle, Deputy General Counsel
Council on Environmental Quality
730 Jackson Place NW
Washington, DC 20503

Re: Interim Final Rule - Deadline for Agencies to Propose Updates to National Environmental Policy Act Procedures, 86 Fed. Reg. 34154 (June 29, 2021)
Docket ID No.CEQ-2021-0001

Dear Ms. Coyle:

The undersigned State and territorial Attorneys General and state representatives, specifically, the Attorneys General of the States of Washington, California, New York, Colorado, Connecticut, Delaware, Illinois, Maine, Maryland, Minnesota, Nevada, New Jersey, New Mexico, North Carolina, Oregon, Rhode Island, Vermont, Wisconsin; the Commonwealths of Massachusetts and Pennsylvania; the Territory of Guam; the District of Columbia; Harris County, Texas; the City of New York; and the New York State Department of Environmental Conservation (collectively States) respectfully submit this comment letter in support of the Council on Environmental Quality's (CEQ) interim final rule (Interim Final Rule) extending the deadline for federal agencies to propose updated regulations implementing the National Environmental Policy Act (NEPA), 42 U.S.C. § 4231–4370, from September 14, 2021 to September 14, 2023.¹

The undersigned states support CEQ's stated commitment to review the NEPA regulations promulgated in 2020² (the 2020 Rule) as required by Executive Order 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, to address significant conflicts with NEPA, settled court decisions, Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, and the nation's needs and priorities.³ The amended complaint filed by many of the signatories to this letter challenging the 2020 Rule (Amended Complaint) demonstrates that the prior administration's regulatory overhaul is both

¹ The Interim Final Rule is titled Deadline for Agencies to Propose Updates to National Environmental Policy Act Procedures, 86 Fed. Reg. 34154 (June 29, 2021) Docket ID No.CEQ-2021-0001.

² 85 Fed. Reg. 43304 (July 16, 2020).

³ 86 Fed. Reg. 34155.

unlawful and harmful, and must be repealed as quickly as possible.⁴ While the Interim Final Rule does not directly address the numerous substantive and procedural harms caused by the 2020 Rule, it does prevent certain further harms from agencies' amendment of their NEPA regulations to conform to the 2020 Rule. For the reasons stated below, the States support the Interim Final Rule as a first step towards repealing the 2020 Rule.

The 2020 Rule requires federal agencies to propose new NEPA regulations conforming to the 2020 Rule by September 14, 2021. But because the 2020 Rule is itself arbitrary, capricious, and contrary to law and was promulgated in excess of statutory authority and without observance of procedure required by law, that requirement is likewise improper.⁵ For example, the 2020 Rule unlawfully limits NEPA's application by exempting certain federal actions from any review of their environmental impacts in conflict with NEPA's plain terms.⁶ Additionally, even where the 2020 Rule does require environmental review of an action, analysis of cumulative and indirect impacts, as well as impacts that are geographically or temporally remote, is no longer expressly required, again in violation of NEPA.⁷ Enforcing the existing deadline for the promulgation of agency-specific implementing regulations would only further entrench the illegal 2020 Rule into agency decision-making.

For as long as the 2020 Rule remains in effect, inadequate environmental review or the lack of any environmental review, will continue to cause avoidable harms to the States as outlined in the Amended Complaint filed by many of the signatories to this letter.⁸ The requirement in the 2020 Rule for agencies to propose new implementing regulations by September 14, 2021 forces agencies to repeat these harms via their own regulations.

Indeed, CEQ has expressed "substantial concerns about the legality of the 2020 Rule, the process that produced it, and whether the 2020 Rule meets the nation's needs and priorities, including the priorities set forth in E.O. 13990 and E.O. 14008."⁹ For these reasons, CEQ has indicated its intent to review and amend the 2020 Rule in the near future.¹⁰

The Interim Final Rule also helps to avoid the confusion and litigation that will result if federal agencies adopt regulations implementing the 2020 Rule before CEQ has completed its

⁴ See First Amended Complaint for Declaratory and Injunctive Relief, Nov. 23, 2020 (attached here as Ex. 1). These flaws have sparked other lawsuits around the country. See *Alaska Cmty. Action on Toxics v. CEQ*, No. 20-cv-05199 (N.D. Cal., filed July 29, 2020); *Wild Virginia v. CEQ*, No. 20-cv-0005 (W.D. Va., filed July 29, 2020); *Env'tl. Justice Health All. v. CEQ*, No. 20-cv-6143 (S.D.N.Y., filed Aug. 6, 2020); *Iowa Citizens for Cmty. Improvement v. CEQ*, No. 20-cv-2715 (D.D.C., filed Sept. 23, 2020).

⁵ See generally Ex. 1.

⁶ See Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43304, 43320–21 (July 16, 2020) (adopting new "NEPA thresholds", codified at 40 C.F.R. § 1501.1); see also 85 Fed. Reg. at 43345–50 (redefining "major federal action", codified at 40 C.F.R. § 1508.1(q)); 85 Fed. Reg. at 43321–22 (redefining when an action "significantly" affects the environment, codified at 40 C.F.R. § 1501.3(b)); 85 Fed. Reg. at 43322–23 (expanding the number of categorical exclusions, codified at 40 C.F.R. § 1501.4).

⁷ 85 Fed. Reg. at 43343–44 (changing definition of environmental "effects" to exclude cumulative or indirect effects, codified at 40 C.F.R. § 1508.1(g)).

⁸ See Ex. 1 at 63–70 (describing harms to the States from the 2020 Rule).

⁹ 86 Fed. Reg. at 34155.

¹⁰ *Id.*

revision and amendment of the 2020 Rule. The deadline in 40 CFR § 1507.3(b) would result in multiple rounds of rulemaking by federal agencies: first to conform their procedures with the 2020 Rule, despite CEQ's own acknowledged concerns about its legality, and then to incorporate any revisions CEQ makes to the 2020 Rule. In turn, this would result in the disparate treatment of projects commenced at different points in time, would complicate agency processes, and would confuse agencies, the public, and the courts. Requiring federal agencies to promulgate regulations in conformance with the 2020 Rule by September 14, 2021 would also lead to further litigation, as the flaws of the unlawful 2020 Rule would be replicated in agency regulations. It would also be wasteful and inefficient for numerous federal agencies to go through individual rulemaking processes based on an unlawful rule currently under review. Instead, the extended deadline for implementing regulations in CEQ's Interim Final Rule, allowing CEQ to revise the 2020 Rule before agencies must update their implementing regulations agencies, will conserve agency resources, avoid confusion, and avoid additional litigation.

To conclude, the States support this two-year deadline extension in the Interim Final Rule as a first step in CEQ's ongoing efforts to review and revise or repeal the 2020 Rule. We look forward to CEQ's forthcoming substantive revisions that will restore NEPA's essential role of ensuring democratic, informed, and sustainable agency decision-making.

Sincerely,

FOR THE STATE OF WASHINGTON

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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

STATES OF CALIFORNIA,
WASHINGTON, COLORADO,
CONNECTICUT, DELAWARE, ILLINOIS,
MAINE, MARYLAND, MINNESOTA,
NEVADA, NEW JERSEY, NEW MEXICO,
NEW YORK, NORTH CAROLINA,
OREGON, RHODE ISLAND, VERMONT,
AND WISCONSIN; PEOPLE OF THE
STATE OF MICHIGAN;
COMMONWEALTHS OF
MASSACHUSETTS AND
PENNSYLVANIA; TERRITORY OF
GUAM; DISTRICT OF COLUMBIA;
HARRIS COUNTY, TEXAS; CITY OF
NEW YORK; CONNECTICUT
DEPARTMENT OF ENERGY AND
ENVIRONMENTAL PROTECTION; AND
NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION,

Case No. 3:20-cv-06057

**FIRST AMENDED COMPLAINT FOR
DECLARATORY AND INJUNCTIVE
RELIEF**

(Administrative Procedure Act,
5 U.S.C. §§ 551–559, 701–706; Endangered
Species Act, 16 U.S.C. §§ 1531–1544;
National Environmental Policy Act,
42 U.S.C. §§ 4321–4347)

Plaintiffs,

v.

COUNCIL ON ENVIRONMENTAL
QUALITY AND MARY B. NEUMAYR, in
her official capacity as Chairman of the
Council on Environmental Quality,

Defendants.

1. Plaintiffs, the State of California by and through Attorney General Xavier Becerra; the State of Washington, by and through Attorney General Robert W. Ferguson; the State of Colorado, by and through Attorney General Philip J. Weiser; the State of Connecticut and the Connecticut Department of Energy and Environmental Protection, by and through Attorney General William Tong; the State of Delaware, by and through Attorney General Kathleen Jennings; the State of Illinois, by and through Attorney General Kwame Raoul; the State of Maine, by and through Attorney General Aaron Frey; the State of Maryland, by and through Attorney General Brian E. Frosh; the People of the State of Michigan, by and through Attorney General Dana Nessel; the State of Minnesota, by and through Attorney General Keith Ellison; the State of Nevada, by and through Attorney General Aaron Ford; the State of New Jersey, by and through Attorney General Gurbir Grewal; the State of New Mexico, by and through Attorney General Hector Balderas; the State of New York and the New York State Department of Environmental Conservation, by and through Attorney General Letitia James; the State of North Carolina, by and through Attorney General Joshua H. Stein; the State of Oregon, by and through Attorney General Ellen Rosenblum; the State of Rhode Island, by and through Attorney General Peter F. Neronha; the State of Vermont, by and through Attorney General Thomas J. Donovan, Jr.; the State of Wisconsin, by and through Attorney General Joshua L. Kaul; the Commonwealth of Massachusetts, by and through Attorney General Maura Healey;

the Commonwealth of Pennsylvania, by and through Attorney General Josh Shapiro; the Territory of Guam, by and through Attorney General Leevin Taitano Camacho; the District of Columbia, by and through Attorney General Karl A. Racine; Harris County, Texas, by and through Harris County Attorney Vince Ryan; and the City of New York, by and through Corporation Counsel James E. Johnson (collectively State Plaintiffs) bring this action against Defendants Council on Environmental Quality (CEQ) and Mary Neumayr, in her official capacity as Chairman of CEQ. State Plaintiffs seek judicial review under the Administrative Procedure Act, 5 U.S.C. §§ 551–559 and 701–706 (APA), and the Endangered Species Act, 16 U.S.C. §§ 1531–1544 (ESA), of CEQ’s final rule revising its longstanding regulations implementing the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321–4347, titled Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act (Final Rule), 85 Fed. Reg. 43,304 (July 16, 2020) (to be codified at 40 C.F.R. pt. 1500).

I. INTRODUCTION

2. For more than fifty years, NEPA has served as our nation’s bedrock law for environmental protection by directing federal agencies to make well-informed decisions that protect public health and the environment. NEPA embodies our nation’s democratic values by involving states, territories, local governments, and the public in the federal decision making process.

3. In enacting NEPA, Congress recognized the “critical importance of restoring and maintaining environmental quality to the overall welfare and development of man” and emphasized a national policy of cooperation with state and local governments as well as concerned individuals and private organizations “to use all practicable means ... to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.” 42 U.S.C. § 4331(a).

1 4. Consistent with this overarching policy, Congress directed federal agencies to
2 implement NEPA “to the fullest extent possible” and to conduct a detailed environmental
3 review for “major Federal actions significantly affecting the quality of the human
4 environment” that analyzes an action’s environmental impacts, alternatives to the proposed
5 action, the relationship between short-term uses and long-term productivity, and any
6 irreversible and irretrievable commitment of resources. 42 U.S.C. §§ 4332, 4332(2)(C). As
7 the Supreme Court explained, Congress intended NEPA’s “action-forcing procedures” to help
8 “insure that the policies [of NEPA] are implemented.” *Andrus v. Sierra Club*, 442 U.S. 347,
9 350 (1979) (quoting S. Rep. No. 91-296, at 19 (1969)).

10 5. NEPA is a success story of government transparency, meaningful public
11 participation, informed decision making, and environmental and public health protection.
12 Before NEPA, federal agencies often could make decisions without considering an action’s
13 environmental impacts or public concerns about those impacts. NEPA requires that federal
14 agencies engage in a transparent, public, and informed decision making process to
15 comprehensively evaluate the environmental effects of their actions. NEPA’s focus on
16 government transparency and public participation thus ensures that states, territories, local
17 governments, businesses, organizations, and individuals have a role in shaping federal actions.
18 State and territorial agencies, local governments, and the public have long relied on the NEPA
19 process to identify harms from federal actions to state and territorial natural resources
20 (including State Plaintiffs’ air, water, public lands, cultural resources, and wildlife) and public
21 health that might otherwise be ignored. NEPA’s public process also provides vulnerable
22 communities and communities of color that are too often disproportionately affected by
23 environmental harms a critical voice in the decision making process on actions that threaten
24 adverse environmental and health impacts. NEPA thus reflects the nation’s democratic
25 principles by elevating the public’s role in agency decision making and ensuring that federal
26 agencies thoughtfully review public input before making a decision.

1 6. NEPA prioritizes careful, informed decision making over rushed and reckless
2 action, enabling agencies to consider and adopt alternatives to a proposed action or incorporate
3 mitigation measures that protect public health, preserve irreplaceable natural resources for
4 current and future generations, and avoid long-term, irreversible, and costly environmental
5 harms. NEPA has thus led to more informed decisions and better environmental and public
6 health outcomes for half a century.

7 7. Promoting better decisions by federal agencies is particularly important when
8 the nation faces the unparalleled threat of climate change, which disproportionately impacts
9 communities already overburdened with pollution and associated public health impacts.
10 Federal actions include coal, oil, and natural gas leasing; timber sales; offshore drilling;
11 interstate transportation of coal, crude oil, and natural gas; and interstate transportation
12 projects, among others. These actions threaten to exacerbate climate change harms, pollute
13 State Plaintiffs' air and water, disrupt wildlife habitats, and contribute to disproportionate
14 public health harms. Rigorous environmental review under NEPA identifies these harms,
15 helps to mitigate and avoid them, and ultimately results in more responsible, less harmful
16 federal actions.

17 8. In 1978, defendant CEQ promulgated regulations that have guided NEPA's
18 success for more than forty years. These longstanding regulations have directed federal
19 agencies, and, in some situations, state agencies and local governments involved in major
20 Federal actions significantly affecting the environment, on how to comply with NEPA's
21 procedural requirements and its environmental protection policies. *See* 40 C.F.R. pt. 1500
22 (1978) (1978 regulations).

23 9. Under the current administration, CEQ now seeks to derail NEPA by issuing a
24 Final Rule that rewrites CEQ's enduring regulations implementing NEPA at the expense of the
25 environment and the people it is meant to protect—including State Plaintiffs' residents,
26 wildlife, and natural resources. The Final Rule (i) severely limits which federal actions require

1 NEPA compliance; (ii) greatly narrows the scope of federal agencies' obligation to consider
2 environmental impacts; (iii) threatens to render NEPA's public participation process a
3 meaningless paperwork exercise; and (iv) unlawfully seeks to restrict judicial review of agency
4 actions that violate NEPA.

5 10. The Final Rule strikes at the heart of NEPA—violating NEPA's text and
6 purpose (including NEPA's clear mandate that agencies comply with the statute "to the fullest
7 extent possible," 42 U.S.C. § 4332), and abandoning informed decision making, public
8 participation, and environmental and public health protection. In the Final Rule, CEQ
9 exceeded its authority by exempting certain actions from environmental review and attempting
10 to place unlawful limits on courts' authority to remedy plaintiffs' injuries from NEPA
11 violations.

12 11. CEQ failed to provide a rational justification for its sweeping revisions to the
13 1978 regulations. The Final Rule reverses CEQ's longstanding interpretations of and guidance
14 on NEPA, undercutting decades of reliance by State Plaintiffs on well-established NEPA
15 procedures and policies that allowed states, territories, and local governments to identify
16 potential harms to their natural resources and residents and to advocate for alternatives and
17 mitigation measures to avoid those harms. CEQ asserted that the Final Rule advances the
18 original objectives of its 1978 regulations to reduce paperwork and delays while asserting that
19 it will "produce better decisions [that] further the national policy to protect and enhance the
20 quality of the human environment." Final Rule, 85 Fed. Reg. at 43,313 (citing 43 Fed. Reg.
21 55,978 (Nov. 29, 1978)). But CEQ failed to explain how the Final Rule will advance these
22 objectives when the Final Rule undercuts informed decision making and environmental
23 protection, and sweeps away decades of agency guidance and case law. CEQ also failed to
24 comply with the APA's notice-and-comment requirements in promulgating the Final Rule.
25 The Final Rule thus violates the basic requirements of rational agency decision making.
26

12. Further, the Final Rule may impact listed endangered and threatened species and designated critical habitat, yet CEQ failed to consult with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) (collectively, Services) regarding those impacts prior to promulgating the Final Rule, as required under section 7 of the ESA. 16 U.S.C. § 1536.

13. Last, the Final Rule is unlawful because CEQ failed to review the Final Rule's significant environmental and public health impacts as required by NEPA itself.

14. For these reasons, the Final Rule is arbitrary, capricious, and contrary to law in violation of the APA and NEPA, was promulgated in excess of statutory authority and without observance of procedure required by law, and should be vacated.

II. JURISDICTION AND VENUE

15. This action raises federal questions and arises under NEPA, the APA, and the ESA. This Court therefore has jurisdiction over State Plaintiffs' claims pursuant to 28 U.S.C. § 1331 (action arising under the laws of the United States), 5 U.S.C. §§ 701–06 (APA), and 16 U.S.C. § 1540(g)(1) (ESA). State Plaintiffs seek declaratory and injunctive relief pursuant to 28 U.S.C. §§ 2201–02, 5 U.S.C. §§ 701–06, and 16 U.S.C. § 1540(g)(1)(A).

16. An actual controversy exists between the parties within the meaning of 28 U.S.C. § 2201(a), and the Court may grant declaratory and injunctive relief under 28 U.S.C. §§ 2201–02, 5 U.S.C. §§ 705–06, and 16 U.S.C. § 1540(g)(1)(A).

17. CEQ is an agency subject to APA requirements. 5 U.S.C. § 551. Each of the State Plaintiffs is a “person” authorized to bring suit under the APA to challenge unlawful final agency action. *Id.* §§ 551(2), 702. The Final Rule is a final agency action subject to review under the APA. *Id.* §§ 704, 706.

18. The United States has waived sovereign immunity for claims arising under the APA. *Id.* § 702.

19. CEQ is an agency subject to ESA requirements. 16 U.S.C. § 1540(g)(1)(A). Each of the State Plaintiffs is a “person” authorized to bring suit under the ESA to challenge violations of the ESA’s requirements. *Id.* §§ 1532(13), 1540(g)(1). On September 22, 2020, State Plaintiffs provided Defendants with sixty days’ written notice of their intent to sue, in satisfaction of ESA section 11(g). 16 U.S.C. § 1540(g)(2)(i). A copy of the notice is attached as Exhibit A.

20. State Plaintiffs submitted timely and detailed comments opposing CEQ’s proposed rule that preceded the Final Rule, *see* Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1,684 (Jan. 10, 2020) (Proposed Rule), and have therefore exhausted all administrative remedies.

21. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(e) because this is the judicial district in which Plaintiff State of California resides, and this action seeks relief against federal agencies and officials acting in their official capacities.

III. INTRADISTRICT ASSIGNMENT

22. Although no basis exists under Civil Local Rule 3-2(c) for assigning this action to any particular location or division of this Court, this case is related to *Alaska Community Action on Toxics v. Council on Environmental Quality*, Case No. 3:20-CV-05199, which challenges the same Final Rule and is assigned to Judge Richard Seeborg in the San Francisco Division.

IV. PARTIES

A. Plaintiffs

23. Plaintiff STATE OF CALIFORNIA brings this action by and through Attorney General Xavier Becerra. The Attorney General is the chief law enforcement officer of the state and has the authority to file civil actions in order to protect public rights and interests, including actions to protect the natural resources of the state. Cal. Const. art. V, § 13; Cal. Gov’t Code §§ 12600–12. This challenge is brought in part pursuant to the Attorney General’s

independent authority to represent the people's interests in protecting the environment and natural resources of California from pollution, impairment, or destruction. Cal. Const. art. V, § 13; Cal. Gov't Code §§ 12511, 12600–12; *D'Amico v. Bd. of Med. Exam'rs*, 520 P.2d 10, 14 (Cal. Sup. Ct. 1974).

24. The State of California has a sovereign interest in its natural resources and is the sovereign and proprietary owner of all the state's fish and wildlife resources, which are state property held in trust by the state for the benefit of the people of California. *People v. Truckee Lumber Co.*, 48 P. 374, 374 (Cal. Sup. Ct. 1897); *Nat'l Audubon Soc'y v. Superior Ct.*, 658 P.2d 709, 727 (Cal. Sup. Ct. 1983).

25. California has millions of acres of federal land across twenty national forests, nine national parks (including world-renowned Yosemite National Park), thirty-nine national wildlife refuges, seven national monuments, and numerous Department of Defense facilities, including at least thirty-two military bases. California is also home to six primary and numerous auxiliary interstate highways, at least nine international airports, and major federal water infrastructure projects, such as the Central Valley Project, which controls a significant proportion of water distribution in the northern and southern regions of the state. Federal agencies, including the U.S. Navy and the Coast Guard, also routinely engage in activities in California's coastal waters. Major Federal actions concerning these lands, waters, projects, highways, airports, and other federal facilities are subject to NEPA.

26. There are currently over 300 species listed as endangered or threatened under the ESA that reside wholly or partially within the State of California and its waters—more than any other mainland state. Examples include the southern sea otter (*Enhydra lutris nereis*) found along California's central coastline, the desert tortoise (*Gopherus agassizii*) and its critical habitat in the Mojave Desert, the marbled murrelet (*Brachyramphus marmoratus*) in north coast redwood forests, as well as two different runs of Chinook salmon (*Oncorhynchus tshawytscha*) and their spawning, rearing, and migration habitat in the Bay-Delta and Central

1 Valley rivers and streams. These and other species are affected by federal projects throughout
2 California. For example, Chinook salmon are threatened by the U.S. Bureau of Reclamation's
3 proposal to raise the level of the Shasta Reservoir in northern California.

4 27. California state agencies, including the California Environmental Protection
5 Agency, the State Water Resources Control Board, the Air Resources Board, the California
6 Department of Food and Agriculture, and the Department of Fish and Wildlife have engaged in
7 the federal NEPA process to protect the state's interest in public health, environmental quality,
8 and state natural resources. For example, California agencies have commented repeatedly on
9 NEPA documents associated with the Bureau of Reclamation's proposal to raise the level of
10 the Shasta Reservoir. The Bureau recently published a draft Supplemental Environmental
11 Impact Statement (EIS) for this project, which is currently open for public comment. The
12 California Department of Water Resources and California Energy Commission also work with
13 federal agencies in preparing NEPA documents. In addition, Caltrans, California's
14 transportation agency, has assumed NEPA responsibilities from the Federal Highway
15 Administration (FHWA), and is thus responsible for complying with all applicable federal
16 environmental laws, including the Final Rule, and with FHWA's NEPA regulations that will
17 be revised under the Final Rule. *See* Memorandum of Understanding Between FHWA and the
18 California Department of Transportation Concerning the State of California's Participation in
19 the Surface Transportation Project Delivery Program Pursuant to 23 U.S.C. § 327 (Dec. 2016).

20 28. Plaintiff STATE OF WASHINGTON is a sovereign entity and brings this
21 action to protect its sovereign and proprietary rights. The Attorney General is the chief legal
22 advisor to the State of Washington, and his powers and duties include acting in federal court on
23 matters of public concern. This challenge is brought pursuant to the Attorney General's
24 statutory and common law authority to bring suit and obtain relief on behalf of Washington.

25 29. Washington has a sovereign and propriety interest in protecting its state
26 resources through careful environmental review at both the state and federal level. Washington

1 has statutory responsibility to conserve, enhance, and properly utilize the state's natural
 2 resources. Wash. Rev. Code. §§ 77.110.030, 90.03.010, 90.58.020; *see also* Wash. Const. art.
 3 XVI, § 1. Washington has over six million acres of forest, range, agricultural, aquatic, and
 4 commercial lands and holds proprietary rights for wildlife, fish, shellfish, and tide lands. Wash.
 5 Const. art. XVII, § 1; Wash. Rev. Code § 77.04.012.

6 30. Washington State has dozens of federally listed species. These listed species
 7 include chinook (*Oncorhynchus tshawytscha*), chum (*Oncorhynchus keta*), and sockeye
 8 (*Oncorhynchus nerka*) salmon, steelhead (*Oncorhynchus mykiss*), Southern Resident killer
 9 whales (*Orcinus orca*) and the pygmy rabbit (*Brachylagus idahoensis*), the smallest rabbit in
 10 North America. Washington also lists thirty-two species as state endangered species and
 11 expends significant resources to protect and recover these species, some of which are not
 12 federally protected. Wash. Admin. Code 220-610-010.

13 31. Washington's natural resources generate more than \$200 million in annual
 14 financial benefits to state public schools, institutions, and county services. They also generate
 15 billions of dollars worth of ecosystem services to surrounding communities by filtering
 16 drinking water, purifying air, and providing space for recreation. Washington's natural areas
 17 generate commercial and recreational opportunities that put billions of dollars into the
 18 Washington economy annually.

19 32. Washington has over 3,000 miles of coastline and millions of acres of federal
 20 lands across ten national forests, three national parks, twenty-three national wildlife refuges,
 21 three national monuments, and numerous Department of Defense locations, including at least
 22 seven military facilities and training areas. Many of these federal lands abut Washington's
 23 state-owned lands. Washington is also home to 145 federally owned or regulated dams,
 24 including Grand Coulee Dam, three interstate highways, five international airports, and the
 25 Hanford Nuclear Reservation. Federal agencies, including the U.S. Navy and the Coast Guard,
 26 also routinely engage in activities in Washington's coastal waters and the adjacent exclusive

1 economic zone and within Puget Sound, one of Washington's most significant ecological,
2 cultural, and economic features. Major Federal actions concerning these lands, waters,
3 projects, highways, airports, and other federal facilities are subject to NEPA.

4 33. Washington state agencies, including the Department of Ecology, the
5 Department of Fish and Wildlife, the Department of Transportation (WSDOT), the Department
6 of Natural Resources, and the Department of Health regularly engage in the federal NEPA
7 process as cooperating and commenting agencies or as agencies with special expertise
8 highlighting potential impacts to the state's natural resources and public health. For example,
9 WSDOT and FHWA jointly worked on the NEPA process to replace the State Route 99
10 Alaskan Way viaduct in Seattle, Washington, where rigorous environmental review and
11 meaningful public engagement led to a selected alternative that worked for state and federal
12 agencies, local governments, tribes, and the public, including minority and low-income
13 communities. Federal agency activities and actions requiring federal permits that affect
14 Washington's coastal zone, water quality, wildlife, and cultural resources are subject to NEPA
15 and are also reviewed by state agencies for consistency and compliance with Washington's
16 laws and programs. In some situations, such as certain actions on federal lands, NEPA is the
17 sole means for state agencies to advocate for protection of Washington's resources, including
18 protection of state (but not federally) listed species and other species of concern and their
19 habitat, and to identify unintended consequences of a proposed action.

20 34. Plaintiff STATE OF COLORADO is a sovereign entity that regulates land use,
21 water and air quality, wildlife, and water resources within its borders through duly enacted
22 state laws. The State of Colorado brings this action in its sovereign and proprietary capacity to
23 protect public health, safety, welfare, its waters and environment, its wildlife and wildlife
24 habitat, and its economy.

25 35. Clean air, land, and water provide ecologically vibrant habitats that undergird
26 the state's robust outdoor recreation economy. For instance, in Colorado, fishing and wildlife

1 watching each contribute \$2.4 billion in economic output each year, supporting more than
2 30,000 jobs within the state. Hunting supports nearly 8,000 additional jobs and contributes
3 more than \$800 million in annual economic output. The entire outdoor recreation economy,
4 which also includes hiking, skiing, and other activities, accounts for \$62.5 billion dollars of
5 economic output in Colorado. Colo. Parks & Wildlife, *The 2017 Economic Contributions of*
6 *Outdoor Recreation in Colorado* (July 2018). Agriculture is also an important economic
7 engine and cultural resource in Colorado. As of 2019, Colorado's agricultural industry
8 contributed \$47 billion in economic output and directly employed more than 195,000 workers.
9 The natural environment influences all aspects of agriculture and food production in Colorado.

10 36. Colorado is home to seventeen federally listed animals, including the recently-
11 listed Eastern black rail (*Laterallus jamaicensis*), the Canada lynx (*Lynx canadensis*), the
12 bonytail (*Gila elegans*), the greenback cutthroat trout (*Oncorhynchus clarki stomias*), which is
13 designated as the state fish, and the only ferret native to the Americas, the black-footed ferret
14 (*Mustela nigripes*). Colorado lists thirty-one animal species as state endangered or threatened
15 species, a number of which are not federally protected. The state is also home to sixteen
16 federally listed plants, including the Colorado hookless cactus (*Sclerocactus glaucus*) and the
17 Pagosa skyrocket (*Ipomopsis polyantha*).

18 37. As Colorado's population rapidly grows, the state must ensure that projects
19 intended to serve that population also protect the natural environment for current and future
20 generations. For example, the Colorado Department of Transportation prepares environmental
21 analyses for projects involving state and interstate highways, bridges, and multi-modal
22 transportation. Similarly, the Colorado Department of Agriculture participates in NEPA
23 reviews for public-land grazing permit renewals and for range improvement projects involving
24 water distribution systems and habitat management. Colorado's Department of Public Health
25 and Environment reviews projects for oil and gas leases, transportation, and wastewater
26 infrastructure as part of the NEPA process. The Colorado Department of Natural Resources

1 utilizes and participates in NEPA processes for land use and water planning, disaster
2 preparedness, and fish and wildlife protection.

3 38. Through early and meaningful involvement in the NEPA process, state agencies
4 help ensure that NEPA reviews are informed by accurate technical and scientific analysis and
5 preserve important natural, historic, and cultural resources in Colorado communities. To this
6 end, Colorado agencies regularly consider direct, indirect, and cumulative impacts on the
7 natural environment and general welfare.

8 39. Plaintiff STATE OF CONNECTICUT is a sovereign entity and brings this
9 action to protect its citizens and natural resources. The Connecticut Attorney General is an
10 elected constitutional official and the chief legal officer of the State of Connecticut. The
11 Connecticut Attorney General's responsibilities include intervening in various judicial and
12 administrative proceedings to protect the interests of the citizens and natural resources of the
13 State of Connecticut and ensuring the enforcement of a variety of laws of the State of
14 Connecticut. This challenge is brought pursuant to the Attorney General's statutory and
15 common law authority to bring suit and obtain relief on behalf of the State of Connecticut.

16 40. Connecticut has a sovereign interest in protecting the health and safety of its
17 citizens and its natural resources. Connecticut has a statutory duty to protect, conserve, and
18 properly utilize its natural resources and public trust lands. Connecticut has over 1.7 million
19 acres of forest, 173,000 acres of wetlands, 437,000 acres of agricultural land, 70,000 acres of
20 shellfishing beds, and 22,000 acres of public trust lands, not including the entire seafloor of
21 Long Island Sound up to the New York border, which Connecticut holds in public trust.
22 Connecticut lists twenty-three species as endangered species and expends significant resources
23 to protect these species. Connecticut's natural resources generate hundreds of millions of
24 dollars in annual financial benefits to the state and its citizens.

25 41. Connecticut is home to fifteen federally listed animals, including the Puritan
26 Tiger Beetle (*Cicindela puritana*), the Dwarf Wedgemussel (*Alasmodonta heterodon*), and the

1 Roseate Tern (*Sterna dougallii*), and four federally listed plants, including the Small Whorled
2 Pogonia (*Isotria medeoloides*) and the American Chaffseed (*Schwalbea americana*). Seven
3 additional animal species known to occur in Connecticut have been proposed for federal listing
4 under the ESA.

5 42. Connecticut has 322 miles of coastline and three major ports (Bridgeport, New
6 Haven, and New London). Long Island Sound is Connecticut's largest and most important
7 maritime natural resource and is vital to Connecticut's economy. Maritime business accounts
8 for approximately five billion dollars in state economic output and provides 30,000 jobs and
9 tens of millions of dollars in state and local taxes.

10 43. Connecticut is also home to sixteen federally regulated dams, three interstate
11 highways, an international airport, and the Naval Submarine Base in New London. Major
12 Federal actions concerning these lands, waters, projects, highways, airports, and other federal
13 facilities are subject to NEPA.

14 44. Connecticut state agencies, including the Department of Energy and
15 Environmental Protection, the Department of Transportation, and the Department of Health
16 regularly engage in the federal NEPA process, often as agencies with special expertise relevant
17 to the potential impacts to the state's natural resources and public health. In these cases, the
18 opportunity for rigorous environmental review and meaningful public engagement have been
19 critical for state agencies, local governments, tribes, and the public, particularly for minority
20 and low-income communities. Federal agency activities and actions requiring federal permits
21 that affect Connecticut's coastal zone, water quality, wildlife, and cultural resources are subject
22 to NEPA and are also reviewed by state agencies for consistency and compliance with
23 Connecticut's laws and programs. In some situations, NEPA is the sole means for Connecticut
24 agencies to advocate for protection of Connecticut's citizens and natural resources.

25 45. Plaintiff STATE OF DELAWARE is a sovereign state of the United States of
26 America. Delaware brings this action by and through Attorney General Kathleen Jennings,

1 who is the chief law officer of Delaware, *Darling Apartment Co. v. Springer*, 22 A.2d 397, 403
 2 (Del. 1941), and is empowered and charged with the duty to represent as counsel in all
 3 proceedings or actions which may be brought on behalf or against the state and all officers,
 4 agencies, departments, boards, commissions and instrumentalities of state government, Del.
 5 Code Ann. tit. 29, § 2504.

6 46. The State of Delaware has twenty-two federally listed endangered and
 7 threatened species. These listed species include Atlantic sturgeon (*Acipenser oxyrinchus*),
 8 shortnose sturgeon (*Acipenser brevirostrum*), loggerhead sea turtle (*Caretta caretta*), bog turtle
 9 (*Glyptemys muhlenbergii*), red knot (*Calidris canutus*), black rail (*Laterallus jamaicensis*),
 10 piping plover (*Charadrius melodus*), northern long-eared bat (*Myotis septentrionalis*), swamp
 11 pink (*Helonias bullata*) and seabeach amaranth (*Amaranthus pumilus*). Delaware also lists an
 12 additional sixty-nine species as state endangered species that are not federally listed.

13 47. As one of the most low-lying states in the nation, Delaware is particularly at
 14 risk from the harms of climate change, including sea level rise. For example, a 2012 Delaware
 15 Sea Level Rise Vulnerability Assessment found that sea level rise of only 0.5 meters would
 16 inundate either percent of the state's land area. Areas inundated would include "transportation
 17 and port infrastructure, historic fishing villages, resort towns, agricultural fields, wastewater
 18 treatment facilities and vast stretches of wetlands and wildlife habitat of hemispheric
 19 importance." The Assessment concluded that "every Delawarean is likely to be affected by sea
 20 level rise whether through increased costs of maintaining public infrastructure, decreased tax
 21 base, loss of recreational opportunities and wildlife habitat, or loss of community character."

22 48. Multiple entities within Delaware rely on NEPA as cooperating agencies. For
 23 example, the Delaware Coastal Management Program uses information provided in the federal
 24 consistency determination required under Section 307 of the Coastal Zone Management Act of
 25 1972 to assess impacts to Delaware's coastal uses and resources. Federal agencies are
 26 encouraged to use NEPA material to satisfy the federal consistency determination

1 requirements. Therefore, any rollback of NEPA obligations may cause the quality of
2 information submitted to degrade, leaving Delaware's coastal uses and resources more
3 vulnerable to federal activities in the state. Similarly, the Division of Water receives NEPA
4 documents in support of permit applications, such as Water Quality Certification
5 determinations. Delaware relies on the federal NEPA process to coordinate its protection of
6 the state's interests.

7 49. Plaintiff STATE OF ILLINOIS brings this action by and through Attorney
8 General Kwame Raoul. The Attorney General is the chief legal officer of the State of Illinois
9 (Ill. Const., art. V, § 15) and "has the prerogative of conducting legal affairs for the State."
10 *Env't'l Prot. Agency v. Pollution Control Bd.*, 372 N.E.2d 50, 51 (Ill. Sup. Ct. 1977). He has
11 common law authority to represent the People of the State of Illinois and "an obligation to
12 represent the interests of the People so as to ensure a healthful environment for all the citizens
13 of the State." *People v. NL Indus.*, 604 N.E.2d 349, 358 (Ill. Sup. Ct. 1992).

14 50. Illinois has a sovereign interest in protecting its natural resources through
15 careful environmental review at the federal level. Among other interests, Illinois has
16 "ownership of and title to all wild birds and wild mammals within the jurisdiction of the state."
17 520 Ill. Comp. Stat. 5/2.1. There are currently thirty-four species listed as endangered or
18 threatened under the ESA that reside wholly or partially within the State of Illinois and its
19 waters. For example, the Illinois cave amphipod (*Gammarus acherondytes*) is a small
20 crustacean that is endemic to six cave systems in Illinois' Monroe and St. Clair County.
21 Illinois is also home to the piping plover (*Charadrius melodus*). Additionally, the Illinois
22 Endangered Species Protection Board has listed 372 endangered species, many of which are
23 not federally protected. The state expends resources to protect and recover these species.

24 51. Furthermore, federally managed lands in Illinois are vitally important to the
25 state and in need of protection. The Shawnee National Forest spans over 289,000 acres in
26 southern Illinois and straddles six natural ecological regions; the Midewin National Tallgrass

1 Prairie is the largest open space in the Chicago metropolitan area. Additionally, significant oil
2 and gas pipeline development takes place in Illinois.

3 52. Plaintiff STATE OF MAINE, a sovereign state of the United States of America,
4 brings this action by and through its Attorney General Aaron Frey. The Attorney General of
5 Maine is a constitutional officer with the authority to represent the State of Maine in all matters
6 and serves as its chief legal officer with general charge, supervision, and direction of the state's
7 legal business. Me. Const. art. IX, § 11; 5 M.R.S.A. §§ 191–205. The Attorney General's
8 powers and duties include acting on behalf of Maine and the people of Maine in the federal
9 courts on matters of public interest. The Attorney General has the authority to file suit to
10 challenge action by the federal government that threatens the public interest and welfare of
11 Maine residents as a matter of constitutional, statutory, and common law authority.

12 53. Maine has a sovereign interest in protecting its natural resources through careful
13 environmental review at both the state and federal level. Maine has over 3,000 miles of
14 coastline, a coastline that generates millions of dollars in commercial fishing income and
15 tourism income, and recreational opportunities to the residents of the state. Federal agencies'
16 activities in these vital coastal waters are regulated under NEPA. Federally protected lands in
17 Maine total 295,479 acres, including Acadia National Park, which includes 47,000 acres, and
18 Katahdin Woods and Waters National Monument, with 87,563 acres. Maine has eleven
19 National Wildlife Refuges which encompass 76,230 acres, including the renowned Rachel
20 Carson National Wildlife Refuge. Maine has two federal fish hatcheries, several airports, one
21 military base, 365 miles of federal interstate highways, and ninety-two federally licensed dams.

22 54. The State of Maine has seventeen species federally listed as endangered or
23 threatened. These listed species include Piping Plovers (*Charadrius melodus*), Leatherback
24 sea turtles (*Dermochelys coriacea*), Roseate terns (*Sterna dougallii*), Northern Atlantic Right
25 Whales (*Eubalaena glacialis*), Canada Lynx (*Lynx canadensis*), Atlantic Salmon (*Salmo*
26 *salar*), Northern Long-Eared Bats (*Myotis septentrionalis*), and Rusty patched bumble bees

(*Bombus affinis*). Maine lists 64 marine and inland species as endangered or threatened in the State, most of which are not federally listed. The State devotes considerable resources to protecting these species and the habitat that is vital to their survival and recovery.

55. Maine's environmental agencies, including the Department of Environmental Protection, the Department of Marine Resources, the Department of Inland Fisheries and Wildlife, and the Department of Agriculture, Conservation and Forestry, engage in the federal NEPA process to protect the state's natural resources and public health. NEPA review of Federal agency activities and activities requiring federal permits that affect Maine's natural resources provides essential protection to Maine's environment.

56. Plaintiff STATE OF MARYLAND brings this action by and through its Attorney General, Brian E. Frosh. The Attorney General of Maryland is the state's chief legal officer with general charge, supervision, and direction of the state's legal business. Under the Constitution of Maryland and as directed by the Maryland General Assembly, the Attorney General has the authority to file suit to challenge action by the federal government that threatens the public interest and welfare of Maryland residents. Md. Const. art. V, § 3(a)(2); Md. Code. Ann., State Gov't § 6-106.1. Maryland has enacted its own Environmental Policy Act, *see* Md. Code. Ann., Nat. Res. §§ 1-301 *et seq.*, which is triggered upon the general assembly's appropriation of funding for major projects.

57. The State of Maryland has a sovereign and proprietary interest in protecting its state resources through careful environmental review of major federal actions. These resources include the Chesapeake Bay, one of the nation's most productive estuaries with a watershed that spans 64,000 square miles across six states and the District of Columbia. It is the official policy of the state "to conserve species of wildlife for human enjoyment, for scientific purposes, and to insure their perpetuation as viable components of their ecosystems." Maryland Nongame and Endangered Species Conservation Act, Md. Code. Ann., Nat. Res. § 10-2A-02. To that end, more than 150 species of animals and 340 species of plants are listed

1 as state endangered, threatened, or in need of conservation. *See* COMAR 08.03.08 (providing
2 lists of plant and wildlife species with elevated conservation statuses).

3 58. Twenty-one federally listed species, including thirteen animals and eight plants,
4 are believed to occur in Maryland. Currently listed species include the federally endangered
5 dwarf wedgemussel (*Alasmodonta heterodon*), the federally threatened bog turtle (*Glyptemys*
6 *muhlenbergii*), and the federally threatened Puritan tiger beetle (*Cicindela puritan*). Maryland
7 is also home to one of the Endangered Species Act's biggest success stories, the Delmarva Fox
8 Squirrel (*Sciurus niger cinereus*), which thanks to federal, state, and private conservation
9 efforts, was removed from the list of federally threatened species in 2010.

10 59. The federal government has a large presence in Maryland. There are more than
11 480 miles of interstate highways in Maryland, including I-95, I-70, the Baltimore Beltway, and
12 portions of the capital beltway that connects the greater Washington, D.C. Metropolitan Area.
13 A number of federally owned or operated facilities are also located in Maryland including the
14 Aberdeen Proving Ground, U.S. Naval Academy in Annapolis, and Camp David.
15 Additionally, the state is home to five National Wildlife Refuges, the Assateague Island
16 National Seashore, and numerous national parks, monuments, and battlefields. Major federal
17 actions concerning these lands, waters, highways, and parks are subject to NEPA review.

18 60. Maryland agencies frequently participate in and rely on the federal NEPA
19 process as cooperating and commenting agencies. The State Highway Administration, for
20 example, addresses floodplain management for federally funded projects through NEPA, and
21 the Maryland Department of the Environment completes NEPA-like reviews for projects
22 funded through the U.S. Environmental Protection Agency's State Revolving Fund programs
23 for clean water and drinking water.

24 61. Plaintiff PEOPLE OF THE STATE OF MICHIGAN brings this action by and
25 through Attorney General Dana Nessel, who is authorized by statute and under common law to
26 initiate litigation in the public interest on behalf of the People of the State of Michigan.

62. Michigan has twenty-six federally listed threatened and endangered species. The listed species include the Eastern Massasauga rattlesnake (*Sistrurus catenatus*), the Canada lynx (*Lynx canadensis*), and the Piping plover (*Charadrius melodus*).

63. Among other things, the People of the State of Michigan will be harmed by the federal government's dereliction of duty in the Final Rule's treatment of climate change under NEPA. Michigan is already being harmed by climate change. Since 1951, the average annual temperature has increased by a range of 0.6-1.3 degrees Fahrenheit across the Lower Peninsula. During that same time, annual average precipitation increased by 4.5 percent as well. Michigan faces extreme heat events, excess rain and flooding, respiratory illnesses, heat-related illnesses, and both waterborne and vector-borne diseases. As a result, Michigan is tasked with protecting its citizens from temperature-related illness, respiratory diseases, waterborne diseases exacerbated by extreme rain events, and infectious diseases such as Lyme disease and West Nile Virus. Increased precipitation will also damage Michigan roads, bridges, dams and other physical infrastructure.

64. Plaintiff STATE OF MINNESOTA brings this action by and through its chief legal officer, Attorney General Keith Ellison, to protect Minnesota's interest in its natural resources and the environment. This challenge is brought pursuant to the Attorney General's authority to represent the state's interests. Minn. Stat. § 8.01. Minnesota has enacted and devotes significant resources to implementing numerous laws concerning the management, conservation, protection, restoration, and enhancement of its natural resources. *See, e.g.*, Minn. Stat. Chs. 116B, 116D. Minnesota owns its wildlife resources, Minn. Stat. § 97A.025, and manages them for the benefit of all citizens. Minnesota state agencies, including the Minnesota Pollution Control Agency, the Department of Natural Resources, the Public Utilities Commission, the Department of Commerce, and the Environmental Quality Board regularly engage in the federal NEPA process to protect the state's interest in public health,

1 environmental quality, and state natural resources. Minnesota has a direct interest in the
2 strength and integrity of NEPA's implementing regulations.

3 65. Minnesota is home to Voyageurs National Park, two national monuments, two
4 national forests, three wilderness areas, and one national recreation area. In 2019, there were
5 1,099,276 recreational visits to federal lands and facilities in Minnesota, generating over \$60
6 million in visitor spending for the Minnesota economy. *2019 National Park Visitor Spending*
7 *Effects Report*, National Park Service, (Apr. 2020), [https://www.nps.gov/subjects/](https://www.nps.gov/subjects/socialscience/vse.htm)
8 [socialscience/vse.htm](https://www.nps.gov/subjects/socialscience/vse.htm). These figures do not include the more than 110,000 visitors who
9 traveled through the Boundary Waters Canoe Area Wilderness (BWCAW) every year between
10 2009 and 2016. *USFS Permit and Visitor Use Trends, 2009-2016*, USDA Forest Service, (July
11 7, 2017), https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd549672.pdf. The
12 BWCAW is the most visited wilderness area in the United States.

13 66. Federally listed endangered species in Minnesota include the Rusty-Patched
14 Bumble Bee, (*bombus affinis*), the Topeka Shiner (*nontropis topeka*), the Higgins Eye
15 Pearlymussel (*lampsilis higininsi*), and the Winged Mapleleaf Mussel (*quadrula fragosa*). Of
16 special concern are the Canada lynx (*lynx canadensis*) and the Western Prairie Fringed Orchid
17 (*plantanthera praeclara*).

18 67. There are several major infrastructure projects currently proposed in Minnesota
19 that have been or will be subject to NEPA review. For example, Enbridge Energy, Limited
20 Partnership seeks to replace an oil pipeline that traverses Minnesota, which requires several
21 state and federal permits. There are also two proposed copper-nickel mining projects in
22 Minnesota—one in the watershed of the Boundary Waters Canoe Area Wilderness—that will
23 require many state and federal permits. These projects have attracted a great deal of public
24 attention from Minnesotans and millions, including Minnesota state agencies, have participated
25 in the review processes to date.
26

68. Plaintiff STATE OF NEVADA is a sovereign entity and brings this action by and through Attorney General Aaron Ford to protect its sovereign and proprietary rights. The Nevada Attorney General is the chief law enforcement officer of the State. Attorney General Ford's powers and duties include acting in federal court on matters of public concern and he has the authority to file civil actions in order to protect public rights and interests, including actions to protect the natural resources of the State. Nev. Const. art. V, § 19; Nev. Rev. Stat. §§ 228.170, 228.180. This challenge is brought pursuant to the Attorney General's independent constitutional, statutory, and common law authority to represent the people's interests in protecting the environment and natural resources of the State of Nevada from pollution, impairment, or destruction. Nev. Const. art. V, § 19; Nev. Rev. Stat. § 228.180.

69. Nevada has a sovereign and propriety interest in protecting its natural resources through careful environmental review and is the sovereign and proprietary owner of all the State's fish and wildlife and water resources, which are State property held in trust by the State for the benefit of the people of the State. N.R.S. 501.100 provides that "[w]ildlife in this State not domesticated and in its natural habitat is part of the natural resources belonging to the people of the State of Nevada [and t]he preservation, protection, management and restoration of wildlife within the State contribute immeasurably to the aesthetic, recreational and economic aspects of these natural resources." *See Ex parte Crosby*, 38 Nev. 389, 149 P. 989 (1915); *See also, Kleppe v. New Mexico*, 426 U.S. 529, 545 (1976) ("Unquestionably the States have broad trustee and police powers over wild animals within their jurisdictions."). In addition, the State of Nevada has enacted numerous laws concerning the conservation, protection, restoration and enhancement of the fish and wildlife resources of the State, including endangered and threatened species, and their habitat. As such, the State of Nevada has an interest in protecting species in the State from actions both within and outside of the State. Nevada's natural resources generate more than one hundred million dollars in annual financial benefits to state public schools, institutions, and county services. Nevada's natural

1 areas also generate commercial and recreational opportunities that put billions of dollars into
2 Nevada's economy annually.

3 70. There are currently over thirty-eight species listed as endangered or threatened
4 under the ESA that reside wholly or partially within the State of Nevada. Examples include
5 the desert tortoise (*Gopherus agassizii*) and its critical habitat in the Mojave Desert, the Devil's
6 Hole pupfish (*Cyprinodon diabolis*) reliant on limited aquifers within the Amargosa Desert
7 ecosystem, the Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*) indigenous to
8 Pyramid and Walker Lakes and nearly extirpated by American settlement in the Great
9 Basin, Sierra Nevada bighorn sheep (*Ovis Canadensis sieera*), and the greater sage-grouse
10 (*Centrocercus urophasianus*) found in the foothills, plains and mountain slopes where
11 sagebrush is present across fifteen of Nevada's seventeen counties.

12 71. Nevada has approximately 58,226,015 acres of federally-managed lands,
13 totaling about 84.9 percent of the State's lands, including three national forests, two national
14 parks, three national historic trails, nine national wildlife refuges, three national monuments,
15 one national recreation area, two international airports, seventy wilderness areas, and numerous
16 Department of Defense and Department of Energy locations. The federal agencies that manage
17 these millions of acres and federal actions concerning these lands are subject to NEPA,
18 including the Bureau of Indian Affairs, the Bureau of Land Management, the Bureau of
19 Reclamation, the Department of Defense, the Department of Energy, the FWS, the Forest
20 Service, and the National Park Service. Moreover, additional non-federal lands and facilities
21 in Nevada are subject to federal permitting and licensing requirements.

22 72. Nevada state departments and agencies, including the Department of
23 Conservation and Natural Resources and its many Divisions, the Department of Wildlife, the
24 Department of Transportation, the Agency for Nuclear Projects, the Department of Agriculture,
25 the Colorado River Commission, and the Nevada System of Higher Education, regularly
26 engage in the federal NEPA process as cooperating and commenting agencies or as agencies

1 with special expertise highlighting potential impacts to the state's natural resources and public
2 health. Federal agency activities and actions requiring federal permits that affect Nevada's
3 environmental quality, wildlife, mineral, and cultural resources are subject to NEPA and are
4 also reviewed by state agencies for consistency and compliance with Nevada's laws and
5 programs. In some situations, NEPA is the sole means for state agencies to advocate for
6 protection of Nevada's resources.

7 73. Plaintiff STATE OF NEW JERSEY is a sovereign state of the United States of
8 America and brings this action on behalf of itself and as trustee, guardian and representative of
9 the residents and citizens of New Jersey. As the most densely developed state in the country,
10 New Jersey has actively pursued conservation programs for land and natural resources. New
11 Jersey's voters have approved more than \$3.3 billion in funding for New Jersey Department of
12 Environmental Protection's (NJDEP) Green Acres program to conserve ecologically-sensitive
13 or natural resource-laden properties. Similarly, over 230,000 acres of farmland have been
14 conserved through New Jersey's State Agricultural Development Committee.

15 74. New Jersey expends significant resources protecting its natural resources,
16 including eighty-three state-listed threatened or endangered species, and holds all wildlife, fish,
17 shellfish, and tidal waters in trust for its citizens. New Jersey has at least fourteen federally
18 listed species, including the threatened piping plover (*Charadrius melodus*), red knot (*Calidris*
19 *canutus rufa*), and the recently designated New Jersey state reptile, the bog turtle (*Clemmys*
20 *muhlenbergii*).

21 75. New Jersey is home to well over one hundred miles of coastline, which includes
22 the famed Jersey Shore as a significant tourism driver, and federal activities such as seismic
23 testing and offshore drilling have historically been proposed off of New Jersey's coastline.
24 New Jersey is also home to three primary interstate highways and numerous auxiliary interstate
25 highways, including auxiliary highways running from other states' interstate systems,
26 numerous military installations, including Joint Base McGuire-Dix-Lakehurst, and federal

1 parks and natural areas where a fully functional NEPA process is essential to sound
2 environmental planning. Due to its geographic location, New Jersey has also become the site
3 for numerous proposed energy transmission infrastructure projects which require federal
4 approvals and are subject to NEPA. New Jersey agencies and authorities, including but not
5 limited to NJDEP, regularly engage in the federal NEPA process. NJDEP routinely comments
6 during the NEPA process to inform the relevant federal agency about mechanisms to avoid,
7 minimize, and/or mitigate potential impacts to the environment and public health, as well as to
8 educate the federal agency about New Jersey's own statutory and regulatory requirements.
9 Further, project proponents may use an EIS properly completed under NEPA or properly
10 promulgated categorical exemptions as a substitute for compliance with New Jersey's
11 Executive Order 215 (1989).

12 76. Plaintiff STATE OF NEW MEXICO joins in this action by and through
13 Attorney General Hector Balderas. The Attorney General of New Mexico is authorized to
14 prosecute in any court or tribunal all actions and proceedings, civil or criminal, when, in his
15 judgment, the interest of the state requires such action. N.M. Stat. Ann. § 8-5-2. New Mexico
16 has a statutory duty to "ensure an environment that in the greatest possible measure will confer
17 optimum health, safety, comfort and economic and social well-being on its inhabitants; will
18 protect this generation as well as those yet unborn from health threats posed by the
19 environment; and will maximize the economic and cultural benefits of a healthy people." *Id.*
20 § 74-1-2.

21 77. Federal agencies have an enormous footprint in New Mexico. More than one-
22 third of New Mexico's land is federally administered, with the United States Department of
23 Agriculture, Department of the Interior, and Department of Defense playing active roles in
24 land management within the state. The state is home to the nation's newest national park
25 (White Sands National Park, established 2019); first designated wilderness area (Gila
26 Wilderness, established 1924); and largest military installation (White Sands Missile Range).

1 It also hosts two National Laboratories, three Air Force Bases, and the nation's only deep
2 geologic repository for nuclear waste (the United States Department of Energy's Waste
3 Isolation Pilot Project or WIPP). The state contains a significant portion of the Navajo Nation
4 Indian reservation as well as twenty-two other federally recognized Indian tribes. The U.S.
5 Army Corps of Engineers operates seven dams in New Mexico, and the U.S. Department of
6 Agriculture manages five in-state National Forests, comprising over nine million acres. The
7 Bureau of Land Management (BLM) also oversees over thirteen million acres of public lands,
8 thirty-six million acres of federal mineral estate, and approximately eight million acres of
9 Indian trust minerals in New Mexico. BLM has approved over 7,800 oil and gas leases in the
10 state, as well as twenty-one federal coal leases encompassing 42,756 acres.

11 78. New Mexico is home to a vast array of plant and animal species, many of which
12 are either threatened or endangered. Indeed, FWS lists forty-one animal and fourteen plant
13 species as threatened or endangered in New Mexico. These include the endangered, iconic
14 Southwestern willow flycatcher (*Empidonax traillii extimus*), the endangered Rio Grande
15 silvery minnow (*Hybognathus amarus*), the endangered jaguar (*Panthera onca*), the
16 endangered Mexican wolf (*Canis lupus baileyi*), and the threatened Mexican spotted owl (*Strix*
17 *occidentalis lucida*). Furthermore, the New Mexico Department of Game and Fish maintains
18 its own list of 116 in-state threatened and endangered species and subspecies – including
19 crustaceans, mollusks, fishes, amphibians, reptiles, birds, and mammals – many of which are
20 not listed by FWS and do not receive federal protection. Among the species receiving only
21 state protection are the endangered Gila monster (*Heloderma suspectum*), the endangered
22 brown pelican (*Pelecanus occidentalis*), and the threatened white-sided jackrabbit (*Lepus*
23 *callotis*).

24 79. New Mexico faces serious environmental challenges in the 21st century. The
25 state is already experiencing the adverse effects of climate change, and average temperatures in
26 New Mexico have been increasing fifty percent faster than the global average over the past

1 century. According to the Third U.S. National Climate Assessment, streamflow totals in the
 2 Rio Grande and other rivers in the Southwest were five percent to thirty-seven percent lower
 3 between 2001 and 2010 than the 20th century average flows. As of August 20, 2020,
 4 100 percent of the state is suffering from drought conditions, with approximately 55.5 percent
 5 being in a “severe drought.” (See Nat’l Integrated Drought Info. Sys.,
 6 <https://www.drought.gov/drought/states/new-mexico>). It is estimated that forty percent of
 7 Navajo Nation residents already lack running water.

8 80. New Mexico relies on participation in the NEPA process to protect its
 9 proprietary and sovereign interests in its natural resources, including weighing the short-term
 10 benefits of resource extraction against the long-term effects of climate change, and conserving
 11 scarce water resources. In one recent example, the New Mexico State Auditor’s Office, the
 12 New Mexico Department of Game and Fish, and the New Mexico Department of Agriculture
 13 submitted comments to BLM regarding the Farmington Mancos-Gallup Resource Management
 14 Plan Amendment, calling BLM’s attention to, among other things, the state’s land and water
 15 conservation planning efforts. Other EISs the state has recently commented on include those
 16 for Los Alamos National Lab (Sitewide EIS); the New Mexico Unit of the Central Arizona
 17 Project (regarding diversion of water from the Gila River); and Plutonium Pit Production at the
 18 Department of Energy’s Savannah River Site (regarding effects from waste shipped to WIPP).
 19 The New Mexico Environment Department alone has submitted comments on eleven EISs in
 20 2020 so far.

21 81. Plaintiff STATE OF NEW YORK brings this action on its own behalf and on
 22 behalf of its environmental agency, the New York State Department of Environmental
 23 Conservation (NYSDEC), to protect New York’s sovereign and proprietary interests, which
 24 include ownership of all wildlife in the state, N.Y. Env’tl. Conserv. Law § 11-0105, and
 25 numerous waterbodies, including without limitation: the land under the “marginal sea” to a line
 26 three miles from the coast, the Great Lakes within the state’s territorial jurisdiction, Lake

1 Champlain and the St. Lawrence and Niagara Rivers, as well as the Hudson and Mohawk
2 Rivers, Lake George, Cayuga Lake, Canandaigua Lake, Oneida Lake, and Keuka Lake. *See*
3 *Town of N. Elba v. Grimditch*, 98 A.D.3d 183, 188–89 (N.Y. App. Div. 3d Dep’t 2012). The
4 state also owns approximately 4.8 million acres of park and forest lands, including more than
5 2.8 million acres of “forever wild” forest preserve. N.Y. Const. art. XIV.

6 82. There are dozens of federally endangered or threatened species that reside in
7 whole or in part within the State of New York and its waters. Examples include four sea
8 turtles that can be found in New York waters—the loggerhead (*Caretta caretta*), green
9 (*Chelonia mydas*), leatherback (*Dermochelys coriacea*) and Kemp’s Ridley (*Lepidochelys*
10 *kempii*). New York hosts ten National Wildlife Refuges, home to federally protected species
11 like the Piping Plover (*Charadrius melodus*), and dozens of other federal sites. Other species
12 of concern include the endangered shortnose sturgeon (*Acipenser brevirostrum*), Atlantic
13 sturgeon (*Acipenser oxyrinchus*), and the Northern long-eared bat (*Myotis septentrionalis*).
14 Strong ESA protections both within its state borders and throughout each species’ range are
15 fundamental to New York’s interests.

16 83. New York is home to nine primary and twenty-two auxiliary interstate
17 highways, six international airports, and several federal military installations, including Fort
18 Drum, the United States Military Academy at West Point, and the Watervliet Arsenal. New
19 York is also home to the Western New York Nuclear Service Center, a program of the New
20 York State Energy Research and Development Authority (NYSERDA), which owns, in trust
21 for the People of the State of New York, a 3,300-acre former nuclear waste re-processing
22 facility that is the subject of an ongoing joint lead agency supplemental environmental review
23 of decommissioning activities under NEPA and state law.

24 84. New York state agencies and authorities, collectively, including without
25 limitation the NYSDEC and NYSERDA, regularly engage or are presently engaged in the
26 federal NEPA process. Federal agency activities and actions requiring federal permits that

1 affect New York's coastal zone, water quality, wildlife, and cultural resources are subject to
2 NEPA, and NEPA analysis is used to support state decision making. For example, where
3 federal and state environmental reviews of a project are undertaken, the NYSDEC may rely on
4 a NEPA EIS where it is sufficient for the agency to make findings under state law. Where no
5 EIS is prepared under NEPA, the NEPA record developed to support a Finding of No
6 Significant Impact may inform the record for analysis under state law. And where state
7 environmental review may be preempted, New York agencies such as NYSDEC may use
8 NEPA analysis to support their decisions, such as water quality certifications.

9 85. Plaintiff STATE OF NORTH CAROLINA brings this action by and through
10 Attorney General Joshua H. Stein. The North Carolina Attorney General is the chief legal
11 officer of the State of North Carolina. The Attorney General is empowered to appear for the
12 State of North Carolina "in any cause or matter ... in which the state may be a party or
13 interested." N.C. Gen. Stat. § 114-2(1). Moreover, the Attorney General is authorized to bring
14 actions on behalf of the citizens of the state in "all matters affecting the public interest." *Id.*
15 § 114-2(8)(a).

16 86. North Carolina has a sovereign and propriety interest in protecting its state
17 resources through careful environmental review at both the state and federal level. It is the
18 constitutional policy of North Carolina to conserve and protect its lands and waters for the
19 benefit of all its citizenry. N.C. Const. Art. XIV, § 5. Under North Carolina law, "the marine
20 and estuarine and wildlife resources of North Carolina belong to the people of the state as a
21 whole." N.C. Gen. Stat. § 113-131(a). Furthermore, North Carolina's General Assembly has
22 declared that it is the policy of the State of North Carolina to "encourage the wise, productive,
23 and beneficial use of the natural resources of the State without damage to the environment,"
24 and to "maintain a healthy and pleasant environment, and preserve the natural beauty of the
25 State." *Id.* § 113A-3.
26

87. North Carolina contains over two million acres of federally-owned lands, including lands managed by the U.S. Forest Service, FWS, National Park Service, and Department of Defense. North Carolina has ten national parks and forty-one state parks. North Carolina is home to thirty-nine animal and twenty-seven plant species that have been listed as endangered or threatened by the FWS, including the endangered Red-cockaded woodpecker (*Picoides borealis*), Carolina northern flying squirrel (*Glaucomys sabrinus coloratus*), and Leatherback sea turtle (*Dermochelys coriacea*).

88. North Carolina agencies regularly engage in the federal NEPA process as cooperating and commenting agencies or as agencies with special expertise highlighting potential impacts to the state's natural resources and public health.

89. Plaintiff STATE OF OREGON brings this suit by and through Attorney General Ellen Rosenblum. The Oregon Attorney General is the chief legal officer of the State of Oregon. The Attorney General's duties include acting in federal court on matters of public concern and upon request by any state officer when, in the discretion of the Attorney General, the action may be necessary or advisable to protect the Oregon's interests. Or. Rev. Stat. § 180.060(1).

90. The State of Oregon has a sovereign interest in its natural resources and is the sovereign owner of the state's fish and wildlife. Under Oregon law, "[w]ildlife is the property of the State." *Id.* § 498.002. The State of Oregon has enacted numerous laws and rules concerning the conservation and protection of the natural resources of the state. *See, e.g.*, Oregon Endangered Species Act, Or. Rev. Stat. §§ 496.171–.192, 498.026; Fish and Wildlife Habitat Mitigation Policy, Or. Admin. R. 635-415-0000 (creating "goals and standards to mitigate impacts to fish and wildlife habitat caused by land and water development actions"); Or. Admin. R. 660-15-0000(5) ("[l]ocal governments shall adopt programs that will protect natural resources"). Oregon State has sixty-six federally listed species (including plants and invertebrates). These listed species include upper Columbia River steelhead (*Oncorhynchus*

1 mykiss), upper Willamette River chinook salmon (*Oncorhynchus tshawytscha*), the marbled
2 murrelet (*Brachyramphus marmoratus*), and the Oregon spotted frog (*Rana pretiosa*). Oregon
3 also lists thirty species as state endangered or threatened species and expends significant
4 resources to protect and recover these species, some of which (for example, the California
5 brown pelican) are not federally protected.

6 91. Natural resources are the source of substantial economic activity in Oregon.
7 More than \$2.6 billion annually is spent in Oregon by residents and visitors on trips and
8 equipment for wildlife-watching, fishing, and hunting. The state also owns at least 1.775
9 million acres of land, including land managed by the Department of Forestry and the
10 Department of State Lands. (That figure generally excludes state-owned waterbodies and
11 rights of way.) Revenue from the 780,000 acres of land managed by the Department of State
12 Lands is placed in the Common School Fund, which generates tens of millions of dollars
13 annually for Oregon public schools.

14 92. More than half of Oregon's land area is owned by the federal government.
15 BLM manages over fifteen million acres in Oregon. The U.S. Forest Service also manages
16 over fifteen million acres (across eleven national forests). Oregon has eighteen national
17 wildlife refuges and Crater Lake National Park. Oregon has three primary and three auxiliary
18 interstate highways. Many Oregon resources, such as the Common School Trust Lands and
19 navigable waters, are ecologically connected to federal lands. Oregon's fish and wildlife
20 resources also rely on federal lands and waters.

21 93. Oregon state agencies, including the Department of Fish and Wildlife, the
22 Department of Transportation, the Department of State Lands, and the Oregon Department of
23 Parks and Recreation, regularly engage in the federal NEPA process as cooperating and
24 commenting agencies or as agencies with special expertise highlighting potential impacts to the
25 state's natural resources and public health.
26

1 94. Plaintiff STATE OF RHODE ISLAND is a sovereign entity and brings this
2 action to protect its sovereign and proprietary rights. The Attorney General is the chief legal
3 advisor to the State of Rhode Island, and his powers and duties include acting in federal court
4 on matters of public concern. This challenge is brought pursuant to the Attorney General's
5 statutory and common law authority to bring suit and obtain relief on behalf of Rhode Island.

6 95. Rhode Island has a sovereign and propriety interest in protecting its state
7 resources through careful environmental review at both the state and federal level. Rhode
8 Island has a statutory responsibility to conserve, enhance, and properly utilize the state's
9 natural resources. R.I. Gen. Laws § 10-20-1; *see also* R.I. Const. art. I, § 17. Although Rhode
10 Island is the smallest state in land size, forests cover fifty-nine percent of its land area, with a
11 total of 393,000 acres. It also has thousands of miles of freshwater streams, rivers, and lakes.
12 Rhode Island lists over twenty-five species as endangered species and expends significant
13 resources to protect and recover these species, some of which are not federally protected.
14 Rhode Island's natural resources generate millions of dollars in annual financial benefits to
15 state public schools, institutions, and municipal services. They also generate millions of
16 dollars' worth of ecosystem services to surrounding communities by filtering drinking water,
17 purifying air, and providing space for recreation. Rhode Island's natural areas generate
18 commercial and recreational opportunities that put hundreds of millions of dollars into the
19 Rhode Island economy annually.

20 96. Rhode Island has over 400 miles of coastline and thousands of acres of federal
21 lands across three National Park Service affiliated sites, five national wildlife refuges,
22 numerous national monuments and historic sites, and numerous Department of Defense
23 locations, including Naval Station Newport and the Quonest Point Air National Guard Station.
24 Many of these federal lands abut Rhode Island's state-owned lands. Rhode Island is also home
25 to two interstate highways and one international airport. Federal agencies, including the U.S.
26 Navy and the Coast Guard, also routinely engage in activities in Rhode Island's coastal waters.

1 Major Federal actions concerning these lands, waters, projects, highways, airports, and other
2 federal facilities are subject to NEPA.

3 97. Rhode Island state agencies, including the Department of Environmental
4 Management and the Coastal Resources Management Council (CRMC), the Department of
5 Transportation, and the Department of Health regularly engage in the federal NEPA process as
6 cooperating and commenting agencies or as agencies with special expertise highlighting
7 potential impacts to the state's natural resources and public health. For example, CRMC and
8 the federal Bureau of Offshore Energy Management jointly worked on the NEPA process to
9 design the installation of a new offshore wind energy project, where rigorous environmental
10 review and meaningful public engagement led to a selected alternative that worked for state
11 and federal agencies, local governments, tribes, and the public, including the commercial
12 fishing industry. Federal agency activities and actions requiring federal permits that affect
13 Rhode Island's coastal zone, water quality, wildlife, and cultural resources are subject to
14 NEPA and are also reviewed by state agencies for consistency and compliance with Rhode
15 Island's laws and programs. In some situations, NEPA is the sole means for state agencies to
16 advocate for protection of Rhode Island's resources, including protection of state listed species
17 and other species of concern and their habitat, and to identify unintended consequences of a
18 proposed action.

19 98. Plaintiff STATE OF VERMONT is a sovereign state in the United States of
20 America. The State of Vermont brings this action through Attorney General Thomas J.
21 Donovan, Jr. The Attorney General is authorized to represent the state in civil suits involving
22 the state's interests, when, in his judgment, the interests of the state so require. 3 V.S.A. Ch. 7.

23 99. Vermont brings this action to protect its sovereign and proprietary interests,
24 including its interests in natural resources and infrastructure. The state has ownership,
25 jurisdiction, and control of all wildlife of the state as trustee for the state's citizens. 10 V.S.A.
26 § 4081(a)(1). Vermont has eleven federally listed species, including the Canada Lynx (*Lynx*

1 *canadensis*) and Eastern Mountain Lion (*Puma concolor*). Vermont also lists 215 state-
 2 endangered and threatened species, which are protected under 10 V.S.A. §§ 5401-5410.

3 100. The state is also trustee for navigable waters, lakes, ponds, and groundwater
 4 located within the state. *Id.* §§ 1390(5), 1421; 29 V.S.A. § 401. Vermont owns, manages and
 5 maintains numerous state forests, parks, and wildlife management areas; buildings and other
 6 infrastructure, including dams, roads, bridges, airports; and railroad, public transportation,
 7 bicycle, and pedestrian facilities. Significant state-owned infrastructure is located in river
 8 valleys and is susceptible to damage or destruction by flooding caused by severe rainstorms,
 9 the severity and frequency of which is being exacerbated by climate change.

10 101. The federal government owns nearly half a million acres of land in Vermont,
 11 comprising about eight percent of the state's total land area. These lands include
 12 approximately 400,000 acres within the Green Mountain National Forest. Located within a
 13 day's drive of seventy million people, the national forest is important to Vermont's economy,
 14 drawing three to four million visitors to Vermont each year for outdoor recreation, and
 15 provides habitat for rare and unique plants, fish, and birds. Federally owned and managed
 16 lands in Vermont also include the Marsh Billings National Historic Park, the Silvia O. Conte
 17 National Fish and Wildlife Refuge, the Missiquoi National Wildlife Refuge, and approximately
 18 150 miles of the Appalachian Trail. Vermont is also home to National Guard installations,
 19 including the Vermont Air National Guard Base in South Burlington, at which F-35 fighter jets
 20 are based. Low-income residents of surrounding communities are disproportionately impacted
 21 by high noise levels from F-35 training runs. Two major interstate highways and numerous
 22 federal aid highways pass through Vermont. The federal government also issues permits and
 23 provides grants and loans for various activities within the state, including Federal Emergency
 24 Management Administration disaster assistance grants for rehabilitation and improvement of
 25 state infrastructure. Federal actions concerning these and other federal lands, facilities and
 26 programs are subject to NEPA.

102. Vermont state agencies, including the Vermont Agency of Transportation and Vermont Agency of Natural Resources, regularly participate in federal NEPA proceedings to protect the State's interests.

103. Plaintiff STATE OF WISCONSIN is a sovereign state of the United States of America and brings this action by and through its Attorney General, Joshua L. Kaul, who is the chief legal officer of the State of Wisconsin and has the authority to file civil actions to protect Wisconsin's rights and interests. *See* Wis. Stat. § 165.25(1m). The Attorney General's powers and duties include appearing for and representing the state, on the governor's request, "in any court or before any officer, any cause or matter, civil or criminal, in which the state or the people of this state may be interested." *Id.* § 165.25(1m).

104. The State of Wisconsin has a sovereign interest in its natural resources and in ensuring the protection and conservation of those resources. The State of Wisconsin holds legal title to and is the custodian of all wild animals within Wisconsin and regulates them for conservation and use and enjoyment by the public. *Id.* § 29.011. The State of Wisconsin holds title to the navigable waters of the state in trust for the public and has a duty to protect and preserve those waters for the public for fishing, hunting, recreation, and enjoyment of scenic beauty. Wis. Const. art. IX, § 1; *Wis. 's Envtl. Decade, Inc. v. Dep't of Nat. Res.*, 85 Wis. 2d 518, 526 (1978). The State of Wisconsin has a sovereign interest in protecting its state resources through careful environmental review at both the state and federal level.

105. Wisconsin is home to the Chequamegon-Nicolet National Forest, the Apostle Islands National Lakeshore, the Ice Age National Scenic Trail, the North Country National Scenic Trail, the Saint Croix National Scenic Riverway, nine federal wildlife refuges and wetland management districts, several Department of Defense facilities including Fort McCoy, five primary interstate highways and additional auxiliary federal highways, and several international airports. Major Federal actions concerning these lands, waters, projects, highways, airports, and other federal facilities are subject to NEPA.

106. Wisconsin has twenty-four federally listed species, including the Northern long-eared bat (*Myotis septentrionalis*), Kirtland's warbler (*Setophaga kirtlandii*), Piping plover (*Charadrius melodus*), Karner blue butterfly (*Lycaeides melissa samuelis*), rusty patched bumble bee (*Bombus affinis*), and Fassett's locoweed (*Oxytropis campestris* var. *chartaceae*). Wisconsin is home to substantial portions of the global population of the endangered Karner blue butterfly and endangered rusty patched bumble bee. The endangered Kirtland's warbler is only found in Michigan and Wisconsin. The variety of the threatened Fassett's locoweed in Wisconsin is found nowhere else in the world.

107. Wisconsin state agencies, including the Wisconsin Department of Natural Resources (WDNR), regularly engage in federal NEPA processes to protect the state's interest in public health, environmental quality, and state natural resources. These agencies have participated in the NEPA process as commenting and cooperating agencies. For example, the WDNR recently provided comments on an environmental assessment prepared by the U.S. Army Corps of Engineers on the placement of dredged material in the upper Mississippi River and on an environmental impact statement prepared by the U.S. Airforce on the addition of F-35 fighter jets at the 115th Fighter Wing National Guard base in Madison, Wisconsin. The WDNR is also serving as a cooperating agency for an environmental assessment with the National Park Service for a new segment of the Ice Age National Scenic Trail and for an environmental impact statement on a proposed bridge corridor over the Fox River in Brown County, Wisconsin.

108. Plaintiff COMMONWEALTH OF MASSACHUSETTS brings this action by and through Attorney General Maura Healey, the chief legal officer of the Commonwealth, on behalf of the Commonwealth and its residents. The Commonwealth has both sovereign and proprietary interests in the conservation and protection of its natural resources and the environment through comprehensive environmental review at both the state and federal level. *See* Mass. Const. Amend. art. 97; Mass. Gen. Laws, ch. 12, §§ 3, 11D.

109. Federal agencies regularly undertake major actions subject to NEPA throughout Massachusetts, including operating federal land and facilities and permitting, licensing, and funding projects that affect the Commonwealth's natural resources. Massachusetts is home to fifteen national parks, five national heritage areas, four wild and scenic rivers, and three national trails managed by the National Park Service and other federal agencies, including the Cape Cod National Seashore, which spans nearly forty miles of coastal land along the eastern shore of Cape Cod. Six Department of Defense military bases, five interstate highways, eight auxiliary interstate highways, two nuclear legacy management sites, one international airport, approximately 1,000 miles of interstate transmission pipelines, and one international liquid natural gas terminal are located in Massachusetts. Numerous federal agencies operate, license, or permit activities in Massachusetts waterways and off Massachusetts's more than 1,500 miles of coastline, impacting Massachusetts fisheries, other valuable resources, and maritime uses, which are critical to the health and economic vitality of the Commonwealth.

110. At least seventeen federally listed and protected endangered or threatened species are known to occur in Massachusetts, including, for example, the threatened piping plover (*Charadrius melodus*) and northern long-eared bat (*Myotis septentrionalis*), and the endangered shortnose sturgeon (*Acipenser brevirostrum*) and leatherback sea turtle (*Dermochelys coriacea*).

111. Massachusetts agencies, including the Massachusetts Executive Office of Energy and Environmental Affairs and its Department of Environmental Protection, Office of Coastal Zone Management, and Division of Fisheries and Wildlife, as well as the Massachusetts Department of Transportation and the Massachusetts Port Authority, engage in the federal NEPA process as coordinating, cooperating, and commenting agencies with specialized expertise to protect the state's interest in public health, environmental quality, and state natural resources. For example, following extensive community involvement and collaboration between multiple state and federal agencies and the two impacted towns during